DOCUMENT RESUME

ED 081 134 EC 052 418

AUTHOR	Gray, Gary L.; And Others
TITLE	Media Production Workshop for Teachers of the Deaf.
INSTITUTION	New Mexico State Univ., Las Cruces. Southwest Regional Media Center for the Deaf.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE	Sep 72
CONTRACT	OEC-4-7-00183-0183(614)
NOTE	100p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Aurally Handicapped; *Deaf; *Exceptional Child Education; *Inservice Teacher Education; *Instructional Media; Media Technology; *Teacher Education; Workshops

ABSTRACT

The manual contains a collection of handouts used in a 3 to 5 day media production and utilization workshop for preservice and inservice teachers of deaf students. The material, which was developed and used in approximately 45 workshops serving 800 teachers over a 2 year period, is considered appropriate for all teachers who use media in their classrooms to supplement live instruction. The section on equipment operation contains directions for mastering 10 kinds of equipment such as 16 millimeter Graflex Sound Projector or a Technicolor 1000 Projector. Instructionalobjectives, a list of materials and equipment, the principle involved, the procedure for production, helpful hints, and a list of utilization techniques are given for the following media: handmade transparencies, machine made transparencies, ektagraphic visualmaker, polaroid photography, dry mounting, laminating, color lifting, rubber cement mounting, lettering, instant art techniques, diazo poster production, television production, and super 8 millimeter production. Also included in the workbook, with sources, are lists of materials, equipment manufacturers, resource materials, and media services available to teachers of the deaf. (For related material, see EC 052 419). (MC)

ED 081134

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

MEDIA PRODUCTION WORKSHOP for TEACHERS of the DEAF

Southwest Regional Media Center for the Deaf

FILMED FROM BEST AVAILABLE COPY

The information in this book was compiled by the Media Staff of the Southwest Regional Media Center for the Deaf under USOE Contract #OEC-4-7-00183-0183 (614)

Coauthors:

Gary L. Gray
Richard T. Hanks
Karen A. Jaeger
Jill M. Stoefen
Larry R. Weidner

September, 1972

This handbook is not to be reproduced without the written permission of the Southwest Regional Media Center for the Deaf.

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY

Southwest Regional Media Center for the Deaf

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

TABLE OF CONTENTS

Equipment Operation . . . . . [redacted]

Handmade Transparency Production . . . . . [redacted]

Machine-made Transparencies . . . . . [redacted]

Slides - Ektagraphic Visualmaker . . . . . [redacted]

Black and White Photography (Polaroid) . . . . . [redacted]

Dry Mounting . . . . . [redacted]

Laminating . . . . . [redacted]

Color Lifting . . . . . [redacted]

Rubber Cement Mounting . . . . . [redacted]

Lettering . . . . . [redacted]

Instant Art . . . . . [redacted]

Diazo Poster Production . . . . . [redacted]

Television Production . . . . . [redacted]

Super 8mm Production . . . . . [redacted]

Materials List . . . . . [redacted]

Equipment Manufacturers . . . . . [redacted]

Resource Materials . . . . . [redacted]

Media Services for Teachers of the Deaf . . . . . [redacted]

EQUIPMENT OPERATION

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objective

Each participant will demonstrate to an instructor, or another participant, how to operate each piece of equipment that is displayed. In addition, each participant will demonstrate to an instructor or another participant, how to change the projection lamp (exciter lamp on sound machines) in each projector that is displayed.

Equipment Needed

16mm Graflex Sound Projector

Language Master

EFI Audio Flashcard Reader

Cassette Tape Recorder

Reel-to-Reel Tape Recorder

16mm Bell and Howell Auto-Load

8mm Ektagraphic Sound 8 Projector

8mm Instamatic 8 Projector

Technicolor 1000 Projector

Technicolor 810 Projector

Carousel Slide Projector

Language Master Cards

EFI Audio Flashcards

Cassette Tapes

Reel-to-Reel Tapes

Graflex 400 RC Filmstrip Projector

Buhl and Bessler Overhead Projector

Tripod Screen

General Information

The operation of most projectors is not as complicated as it may seem. Most projectors and other audio-visual equipment, are for the most part fool-proof. These machines have been designed so that it is nearly impossible for you to electrocute yourself or break it by pushing the wrong button. This does not mean, however, that the operation of these machines is an arbitrary task. In order to operate each machine effectively for maximum machine and film life, a specific procedure should be followed. But, before getting into the specific operating procedure of each individual machine, you should be aware of a few things that are common to most of this machinery.

1. They all have an 'On - Off' switch of some kind. In some cases this switch is combined with the volume or tone controls on sound machines. Sometimes it is a push button affair or a toggle switch. In any case if you'll take the time to look for it you'll probably find it right in front of your nose.

KAJ:9/72

2. All sound projectors have a volume control and unless it has magnetic sound (most Super 8 sound projectors have magnetic sound) it will have two lamps either of which can burn out at the most inconvenient times. One lamp is used to project an image on the screen and the other is an "exciter' lamp, which optically picks up sound off of the film. The exciter lamp is located after the lens along the film path and if burned out it obviously will not reproduce sound.

3. It is not necessary to memorize the film path on most projectors. A threading diagram or threading instructions is usually placed permanently inside of the cover or on the machine near the lens.

4. All projectors have a focus control. In most instances actually turning the lens itself will adjust the focus. In other cases a knob near or attached to the lens will move the lens thereby adjusting the focus.

5. If you want a larger image on the screen, all you need to do is move the projector back away from the screen and refocus. Always try to provide as large of an image as possible without spilling off of the edges of the screen.

6. The projected image should always be either a square or a rectangle (sides parallel) depending on the format of the film projected. If your image is a trapezoid (sides not parallel) the image is considered to be 'keystoned." This is undesirable because it produced a distorted image that is not a true representation of the actual shapes in the film. The keystoned image is produced when the machine is not projecting at a 90° angle to the screen.

Don't be afraid of these machines. It only takes a little practice and common sense to become an expert in their operation. On the other hand, don't abuse them. Like anything else that is mechanical, they can only take so much abuse before an expensive repair is in order.

KAJ:9/72

OPERATING THE 16MM GRAFLEX SOUND PROJECTOR

1. Remove power cord, anchor to projector cart and plug into the proper power source.

2. If you have a detached speaker, place it at the front of the room near the screen and plug cable into the speaker jack in the amplifier control panel.

3. Swing the supply and take-up reel arms up until locked in place.

4. Move film gate lever out to open feed sprocket and film channel.

5. Set master control lever at thread position.

6. Thread projector according to diagram located at base of supply arm.

7. Test threading by rotating manual advance knob.

8. Turn amplifier switch "On."

9. Set master control lever at "Forward" position.

10. Press lamp button marked "Normal." If extra power is needed, push button marked "Hi." Push button marked "Run."

11. To raise or lower picture on screen turn the Elevation Lock Lever counterclockwise to unlock. Raise or lower front of projector as required. When picture is centered on screen, lock projector in position by turning Lock Lever in direction of arrow.

12. Loosen lens, lock screw and focus image on screen by turning lens in or out until image is sharp. Then retighten lock screw.

13. If a black strip appears at the top or bottom of the picture, turn the framing knob until the picture is properly framed.

14. Now that the projector is set up properly, push the "Off" button and run the film back to the starting point by setting the master control lever to the "Reverse" position and pushing the "Run" button.

15. You are now ready to show your film.

Still Frame Projection

If you wish to project a single frame, push the "still" button. If no picture or only part of a picture appears, rotate the Manual Advance Knob until a full picture appears. To continue film push "Run" button.

Remote Control Operation

Thread Graflex 16 projector and set up to operate normally as outlined in the instruction book. After film has been run to the predetermined starting position, switch off projector by activating the remote switch located on the rear cover to the "On" position.

Plug cord leading from remote control into remote socket. Operate projector by activating the remote control.

Rewinding

1. When the film has completely passed through the projector, push the "Off" button. Set the Master Control Lever in the "Reverse Rewind" position.

2. Attach loose end of film to the empty reel. Do not change the position of the reels.

3. Pull the Rewind Control out. Push the "Run" button. Keep hands away from the revolving reels.

4. When film is rewound, push the "Off" button and push in the Rewind Control. Put the Master Control Lever into the "Thread" position ready for the next reel of film.

Removing Lamp House Cover

1. Disconnect power cord.

2. Press Lamp House Release Button with thumb of right hand while grasping cover between thumb and fingers, and pull straight away from projector.

3. To replace, push cover straight in until release catch engages. (NOTE: It may be necessary to rotate the Framing Knob to align knob groove with the shaft.)

Replacing Projection Lamp

1. Remove Lamp House Cover.

2. Remove chimney by lifting straight up. Remove lamp in same manner.

3. To replace lamp, align ridge on center pin of lamp with groove in socket. Push down firmly until it seats with a click. Wipe lamp free of fingerprints and dust.

4. Replace lamp chimney by aligning the notch on chimney with guide pin, and press in firmly. Replace Lamp House Cover.

(Use replacement lamp designated by ASA ordering code DLR or DKM only.) DKM should be used for maximum life at normal line voltages or maximum light output at high line voltages. DLR should be used for maximum light output at normal line voltages.

Replacing Exciter Lamp

1. Remove Lamp House Cover. To remove exciter lamp correctly, turn lamp counterclockwise as you pull it out.

2. Align the three slots in new lamp with pins in the socket and turn clockwise. Replace Lamp House Cover. (Replacement lamp: 800 Series -- BRK; 900 Series -- BSW).

SINGER GRAFLEX CORPORATION

LW (1/24/72)

AUDITORY EQUIPMENT

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Procedure for Recording and Playing Back on the Language Master

1. To record the material on the Language Master cards, plug the Language Master into an electrical outlet.

2. To record on the Instructor's track, move the button on the upper left hand corner by the cord to the right. The light will come on.

3. Push the Student/Instructor bar to Instructor.

4. Then push the Listen/Record bar to Record, and hold. Put the Language Master card in the slot from the right hand side until the rollers take hold of it. Say material to be recorded into the built-in microphone.

5. To prevent the Instructor's track from being erased, push the button in the upper left hand corner by the cord to the left. The light will go out.

6. To play back the material, push the Student/Instructor bar to Instructor. Place Listen/Record lever to Listen and run the card through the slot. The material will be played back.

7. The student can then record his response by placing the Student/Instructor bar to Student, holding the Listen/Record lever to record, running the card through the slot, and making his response into the microphone. He may then listen to his response.

8. On the Language Master, the card moves across the machine from right to left.

Procedures for Recording and Playing Back on the EFI Audio Flashcard Reader

1. The manufacturer's instructions suggest that the EFI Audio Flashcard may be run on AC current or batteries. We have found that recording and playing back on AC current damages the battery pack. When you are recording or playing back you should use the battery pack only. An added bonus -- this will give you greater mobility in the classroom.

2. To record on the Master track (Instructor's track), put the Master Record Key into the slot on the right hand side of the machine.

3. Put the flashcard into the slot, turn the Master Record Key counterclockwise 1/8 turn and hold.

4. Push the red Talk button down, release the Master Record Key, and say the material to be recorded.

5. To prevent the Master Track from being erased, remove the Master Record Key.

6. To play back the material, leave the card in the slot and press the blue card button. The material on the master track will then be played back.

7. The student may then make his response by pressing the red Talk button and saying his response.

8. He may listen to his response by pressing the black Hear button.

9. On the EFI Audio Flashcard Reader, the card remains stationary and the heads move across the card. In the left hand corner near the slot is a window. When the heads are not moving, the window is green. When the heads are moving during recording or playback, it is not green. In the right hand corner near the slot, is another window. It turns red at the end of the recording time on the card.

10. When using the unit four hours or more, recharge the battery over night. To recharge the battery, connect the power cord to any 110-130 V.A.C. outlet. The manufacturer suggests a minimum of 12 hours. We suggest a maximum of 12 hours.

Procedure for Recording and Playing Back on a Cassette Tape Recorder

1. Most cassette tape recorders can be run on AC current or on batteries.

2. To record on a cassette, plug the microphone jack into the microphone input receiver on the recorder.

3. Then insert the cassette tape.

4. Reset the counter by pressing the small button beside it. This indicates the beginning of the recording.

5. Push the play and record buttons together until they lock in place. Speak into the microphone and check the voice level indicator. It should fluctuate in the red area. This can be adjusted by increasing or decreasing the volume.

6. Push the Stop button and then the Rewind button to rewind the tape to the beginning.

7. Push the Record and Play buttons together and record the material.

8. Push Stop button, rewind tape and press Stop button.

9. To play material back detach microphone and press Play button.

10. At the end of the recording, press the Stop button, rewind, and eject the cassette.

Procedure for Recording and Playing Back on a Reel-to-Reel Tape Recorder

1. To record, attach the microphone jack into the microphone input receiver on the tape recorder and plug in the recorder. Turn the on/off switch to on. This may be part of the volume control.

2. To thread the recorder, place the full reel (supply reel) on the left spindle, run it through the tape threading slot, and onto the empty, take-up reel. Rotate both reels by hand 1 1/2 turns and then press Play button to advance tape for a leader.

3. Push Stop button.

4. Reset counter by pressing the small button beside it.

5. Push Play and Record buttons together. Speak into the microphone and check the voice level indicator. This can be adjusted by increasing or decreasing the volume.

6. Press the Stop button.

7. Push the lever to rewind the tape to the beginning and then return it to the middle.

8. Push the Play and Record buttons together and record material.

9. Press Stop button and rewind the tape.

10. To play back the tape, detach the microphone.

11. Push the Play button, listen to the material, and then press the Stop button.

12. Rewind the tape until it is all on the supply reel, push the Stop button, and remove the supply reel.

Utilization

Language Master or EFI Audio Flashcard Reader.

1. Speech Drills: gross sounds
individual sounds
words
phrases
sentences
expression

2. Auditory Discrimination:
   - gross sounds
   - individual sounds
   - words
   - phrases
   - sentences
   - expressions
   - matching exercises

3. Math drills

4. Question work

5. Reading Readiness Activities - Associating sounds and written symbols.

6. Vocabulary drill

7. Comparing individual's speech progress by recording sets of cards at time intervals.

8. Recording stories for students to listen to and read along with.

KAJ:9/19/72

OPERATING THE 16MM BELL AND HOWELL AUTO-LOAD

Setting up the projector

Place the projector on a table or stand at the point from which you will be projecting. Be sure the projector sits high enough to project over the audience. Then:

1. Press Cover Latch Button down and pull cover away from Handle to remove.
2. Release Storage Compartment Door Latch, unwind line cord from 400 foot reel and close Storage Door with cord exiting from opening at lower right corner. Then plug line cord into an outlet.
3. Press in Feed Reel Arm Release Button and swing Pivoted Feed Arm into position.
4. Press in Take-Up Arm Release Button and swing arm into horizontal position.
5. Place reel of film on front Feed Reel Arm, and empty reel on Rear Take-Up Reel Arm.
6. Turn Motor-Lamp Switch past "Forward" to "Lamp" position, and adjust Tilt Knob to center picture on screen.
7. Set Silent-Sound Speed Selector for sound or silent film while projector is running.

Threading the Projector

1. Turn Motor-Lamp Switch to FWD position.
2. Inspect first three feet of leader film. It must be undamaged and free of tape or obstructions. Clip end of leader using Film Trimmer below the lens at the front of the projector.
3. Push Autoload Lever toward front of projector until it locks into position.
4. Insert film into Film Channel until it engages the film sprocket.
5. After approximately 2 feet of leader has passed through the projector, pull lightly on loose end of leader until a "click" is heard, then stop projector and attach end of leader to Take Up Reel and rotate reel to take up slack leader.
6. Turn Motor-Lamp Switch to "Forward Lamp" position.

Operation of the Projector

1. Volume and Tone Control - While film is threading automatically thru projector, turn Volume Switch on and keep sound level low. When title appears, turn up sound to comfortable listening level. Adjust Tone control to suit room acoustics.

2. Focus - As soon as the picture appears on the screen adjust Focus Knob for sharp picture.

3. Framer - If either the top or bottom of the picture is cut off, adjust Framer Knob to vertically align the picture on the screen.

4. Automatic Loop Restorer - Torn perforations or bad splices will sometimes cause a loss of lower loop below the film gate. The Automatic Loop Restorer will reset the lower loop.

5. Systems Restorer - If a larger portion of film is damaged and tension is lost around the sound drum, press down firmly on the Systems Restorer for at least one second. This will normally restore the film to its proper threading path when the projector is running Forward only. If an unduly large portion of film is damaged the projector should be turned off. No loop restoration is possible in reverse projection.

6. Reverse - For reverse action, or to back-up to a particular scene, turn the Motor-Lamp Switch past reverse to Lamp. Reframe the picture if necessary.

7. Still Picture - The picture may be stopped whenever desired by rotating the Run-Still Picture Control to "Still." Refocus if necessary. To fully protect your film, an automatic protective shutter will drop into position causing a decrease in image brilliance. To return to normal projection, rotate Run-Still Picture Control to "Run."

Rewinding

After you have completed your show and all the film is on the takeup reel, turn Motor-Lamp Switch to "Off" position.

1. Support full reel with left hand and lift up slightly. Press Takeup Reel Arm Release Button and swing reel arm to vertical REWIND position.

2. Lead film from back reel and attach it on underside of Front Reel as shown. Rotate reel counterclockwise for two turns to secure film end.

3. Rotate Motor-Lamp Switch to "Reverse" and film will begin to rewind.

4. Press and hold down Rewind Button momentarily on top of projector to speed up rewind.

5. Turn the projector off as soon as film is fully rewound.

Replacing the Projection Lamp

1. Turn off projector and disconnect line cord.

2. Remove lamp house by holding top and bottom of Lamp House and by pulling away from projector.

3. Swing lamp holder clamp downward. Grasp lamp by metal cage and pull it straight outward. (Use glove or cloth on lamp base if lamp is still hot.)

4. Insert new lamp and push-up lamp clamp.

5. Replace Lamp House by first placing round opening over control knob and then push firmly toward projector so that clip will snap into position.

Replacing the Exciter Lamp

1. Volume Control should be in Off position.

2. Loosen Thumb Screw holding Exciter Lamp Cover in place.

3. Pull cover straight out without tilting. Note registration pins that align cover.

4. Swing lamp lock lever counterclockwise to release lamp. Rotate lamp until it can be lifted off guide pins.

5. Place new lamp over guide pins and rotate lamp clockwise. Rotate lock lever clockwise to lock lamp into position.

6. Replace Exciter Lamp Cover by matching the two registration pins to holes. Be certain cover is firmly seated then hold against machine and tighten Thumb Screw.

BELL & HOWELL CORPORATION

LW (1/24/72)

OPERATING THE KODAK EKTAGRAPHIC SOUND 8 MOVIE PROJECTOR

Set-up Procedure

Proceed as follows:

1. Remove the Projector Cover by pulling the Cover Lock toward you. Swing out the right end of the cover and remove it from the projector. A Preview Screen (projection distance 34 inches) is attached to the inside of the cover.

2. Remove the Power Cord from the Storage Box located in the back of the projector. Plug the cord into an outlet.

3. Darken the room enough to permit the projection of a brilliant image on a full-size screen. This does not mean that the room must be totally dark.

4. Start the motor and lamp by turning the Control Knob to Run.

5. Move the Focusing Lever up or down until the lighted area on the screen is sharply defined.

6. Turn the control knob to Off.

Threading

The Ektagraphic Sound 8 Projector is supplied with a 200-foot Take-up Reel located on the Take-up Spindle with a Pinch Ring. If necessary, the reel can be withdrawn from the spindle by first removing the pinch ring.

1. Place a reel of super 8 film (200 feet, maximum) on the Supply Spindle so that the film feeds off the top of the reel clockwise and the perforated edge of the film is toward you. There should be sufficient leader (about 2 feet) for threading.

2. Slide the blue Threading Bar to the Load position.

3. Push the end of the leader into the Film Load Slot until it stops. Guide the leader under the Film Snubber. Turn the control knob to Run. If the leader does not travel through the threading mechanism, push more leader into the film load slot. The film will now be carried automatically through the threading and sound mechanism. Run off two feet of leader; then turn the control knob to off. Return the threading bar to the Run position. Follow the film path, insert the leader end into the take-up reel slot, and rotate the reel clockwise to remove any film slack.

Projection

1. Turn the control knob to Run and move the focusing lever up or down until the image on the screen is sharp.

2. Center the projected image, top to bottom, by turning the Frame Control. Neither a blank strip nor the edge of the next frame should be apparent on the screen.

3. To eliminate projection chatter or a jumping image, push down and release the red Loop-Forming Lever while the projector is running.

4. Adjust the sound level, by turning the Volume Control. An External Jack located below the volume control is provided for connection of an external speaker or high-impedance headphones.

5. After the film has been viewed, turn the control knob to Off.

Rewinding

1. To rewind the film onto the supply reel, insert the film end directly from the take-up reel into the threading slot in the supply reel. Do not attempt to rewind the film while it is threaded through the projection mechanism. If you do, loss of film loop can occur (unsteady picture). Turn the control knob to Rewind; when all the film is on the supply reel, return the control knob to Off.

2. After the last reel of film has been viewed and rewound, turn off the projector, remove the supply reel, unplug the power cord, and insert the cord in the storage box. Replace the projector cover, making sure that it latches at both ends.

Projector Care

Projection Lamp

1. Replacement. Disconnect the power cord before replacing a lamp. Open the ventilation panel. Wait until the lamp is cool before you touch it; then reach into the projector and pull the Lamp straight out from its socket.

   To install a new lamp, hold the lamp so that the rear of its reflector is toward you, insert the center post of the lamp base in the center hole of the socket, rotate the lamp slightly until the key on the center post locates in its groove, and push the lamp all the way in. Close and lock the ventilation panel.

2. Adjustment. After a new lamp has been installed, turn on the projector (without film) and observe the lighted area on the screen. It should be evenly illuminated. If the area is dark at the top or bottom, adjust the lamp position as follows:

   a. Turn off the projector so that the lamp filament will not be damaged during adjustment.

b. Remove the plastic plug from the lamp adjustment Access Hole near the volume control.

c. Insert a screwdriver and turn the lamp-adjustment screw about 45 degrees in either direction. Switch on the projector and check the lighted area. If part of the area is still dark, turn off the projector, rotate the screw another 45 degrees in the same direction, and check the illumination. If the area is darker, rotate the screw in the opposite direction. Continue adjusting the screw until the lighted area is evenly illuminated. Be sure to turn off the projector during each adjustment.

EASTMAN KODAK COMPANY

LW (1/24/72)

OPERATING THE KODAK INSTAMATIC M95 MOVIE PROJECTOR (8MM)

Setting Up

1. Place the projector on a table or other firm support. If possible, the table or support should be as high as the center of the screen.

2. Remove the Take-up Reel (supplied with projector) from the base of the projector by turning it clockwise until the Reel Flange is free of the retaining Clip. Then lift off the reel. The reel accepts both super 8 and regular 8mm films.

3. Unwind the Power Cord from its storage frame on the base of the projector and plug it in.

4. Lay the projector down with the handle toward you. Push the Cover Latch to the left. The cover will spring open. Raise the cover to an upright position.

Adjusting for Film Type

Before threading the film it is necessary to set the projector for the type of film (super 8 or regular 8mm) you are going to project.

To Show Super 8 Movies

1. The Film Type window in the Control Panel should show Super 8. If it does not, remove the Mechanism Cover by grasping it at both ends, swinging the bottom of the cover outward toward the control panel and lifting off the Cover. Turn the Selector Switch clockwise as far as it will go. Read step 2 before replacing the mechanism cover.

2. Check the Supply Spindle to see if the Spindle Adapter for super 8 reels is in place. If it is not, it is stored on the inside of the mechanism cover. Remove the adapter from the Spring Clamp and then replace the mechanism cover. Line up the Arrow on the end of the adapter with the Arrow on the end of the supply spindle. Slide the adapter onto the spindle until the Retaining Spring on the spindle snaps into position.

To Show Regular 8mm Movies

1. The Film Type window in the Control Panel should show REG. 8. If it does not, remove the Mechanism Cover by grasping it at both ends, swinging the bottom of the cover outward toward the control panel and lifting off the cover. Turn the Selector Switch counterclockwise as far as it will go. Read Step 2 before replacing the mechanism cover.

2. Check the Supply Spindle to see if the Spindle Adapter for super 8 reels is in place. If it is, remove it by depressing the Retaining Spring and sliding off the adapter. Store the adapter inside the mechanism cover behind the Spring Clamp. Replace the mechanism cover.

Threading

1. Check to see that the projector is set for the type of film you are going to project.

2. Be sure that rewind switch is in the "Off" position.

3. Plug the power cord into a suitable electric outlet.

4. With its slotted center hole facing the projector (side marked Other Side Out), place the empty take-up reel on the take-up spindle. Push the reel onto the spindle as far as it will go.

5. Place a reel of film (400 ft. maximum) on the supply spindle so that the film comes from the bottom of the reel and the perforated edge of the film is toward you. Push the reel onto the spindle as far as it will go.

6. Thread film under the Guide Roller. Press down the roller until it locks. Allow about 6" of film to extend beyond the roller to complete threading.

7. Turn the Motor-Lamp Switch to Lo or Hi. If the voltage of your electric service is above 125 volts, turn the switch only to Lo. Operating the projector with the motor lamp switch at Lo will greatly increase lamp life. Turn the direction-speed control to Norm (Normal) under For (Forward). It's normal for the supply reel to try to turn "backwards" until the film is threaded.

8. Center the lighted area on the screen vertically, by turning the Elevation Wheel and horizontally, by moving the projector.

9. Thread the film over the Tension Roller and into the Film Entrance in short strokes until the film begins to move automatically; the guide roller will snap upward to its normal position. The film is now transported by the automatic threading mechanism through the threading path in the projector and onto the take-up reel where it attaches itself for take up.

10. Rotate the Focus Wheel backward and forward to focus the picture on the screen. If a blank strip or edge of the next picture shows at the top or bottom of the picture being viewed, rotate the Frame Knob until the picture is properly centered on the screen.

Projection

1. For slow-motion projection, move the direction-speed control to 6; for rapid projection or to get to a certain scene quickly, or to rapidly get past uninteresting scenes, move the direction-speed control to 54.

2. If during projection you wish to show a single frame of film, move the direction-speed control to Still.

3. To reverse the direction of the film, move the direction-speed control to 6, Norm, or 54 under REV (Reverse).

4. When all of the film has reached the take-up reel, move the motor-lamp switch to OFF.

Rewinding

Attach the film to the supply reel by sliding the film into the slot in the side of the reel and giving the reel at least one turn counterclockwise. Make sure that the first turn of film around the center of the reel is tight and that there is no slack between the reels. Push the Rewind Switch downward to ON; then turn the motor-lamp switch to Motor.

After the film is completely rewound, turn the motor-lamp switch to Off; then push in on the rewind switch-it will return to Off.

When the last reel has been shown and rewound, remove the reels and close the cover. Unplug the power cord and wind it behind the four corners of the storage frame, inserting the plug into its channel. Put the take-up reel over the spindle pin on the projector base, turning it counterclockwise until one of the reel flanges is held by the clip.

Lamp Replacement

If a lamp should burn out during projection, accelerate cooling of the projector by running it for a few minutes with the lamp turned off. After cooling, turn off the projector. Disconnect the power cord. Remove the mechanism cover by grasping it at both ends, swinging the bottom of the cover outward toward the control panel and lifting it off. Release the Lamp Retaining Spring and pull the lamp straight out from its socket.

To install a lamp, insert the lamp prongs into the socket and push the lamp in all the way. Then raise the lamp retaining spring as far as it will go. Replace the mechanism cover.

EASTMAN KODAK COMPANY

LW (1/24/72)

OPERATING THE TECHNICOLOR 1000 SUPER 8 CARTRIDGE PROJECTOR

All controls are grouped conveniently on the top panel except the elevation control knob which is located at the rear of the machine.

Set-up and Operation

1. Locate the projector where the screen will be positioned perpendicular to the projected light beam so that sharp focus can be obtained throughout the full width of the picture area.

2. Plug in the Line Cord into an electrical outlet.

3. The cartridge is marked with the word "top" near the center of the top side. Hold the cartridge firmly and "snap" it into the projector until it seats.

4. Press the Green Start Button firmly for two to three seconds to permit the optical sound pivot to "latch-in" and keep the film moving.

5. Adjust the Focus Control Knob until the picture is properly focused on the viewing screen. This adjustment should be made accurately in order to achieve maximum viewing quality of the picture.

6. Adjust the Volume Control Knob until the sound level is most pleasing to the listeners.

7. Adjust the Framing Lever to frame the picture in the film aperture.

8. Rotate the Elevation Knob to properly position the picture vertically on the screen.

9. The projector will stop at the end of the film subject automatically if the film has been "stop-coded" by covering two consecutive sprocket holes with tape. If film has not been coded, the projector will run until stopped by depressing the stop (red) button.

10. To stop the projector simply depress the red stop button. The unit may be stopped and started at any time.

11. To remove the film cartridge stop the projector by depressing the red stop button and withdraw the cartridge from the machine. (CAUTION: Do not attempt to remove the film cartridge while the projector is running, as it would probably break the cartridge and allow the broken pieces to fall into the machine.)

Replacing the Projection Lamp

1. Disconnect the power cord and allow the projector to cool. Up to fifteen minutes may be required in some cases.

2. Remove the film cartridge from the projector.

3. Remove the relamping panel by pulling it outward at the top to free the spring latches and lifting it upward to free the lower tabs.

4. Grasp the lamp at the base between the thumb and fingers, press downward slightly and pull straight forward and out.

5. Grasp the new projection lamp near the base between the thumb and fingers, slide it into place while pressing downward slightly. The lamp should "snap" into position readily.

6. Plug in the power cord, insert a film cartridge and turn on the projector for an instant to make sure the new lamp lights.

7. Remove the film cartridge and install the relamping panel.

Replacing the Exciter Lamp

NOTE: The filament of the exciter lamp is in series with the hold-in coil and when the filament burns out, the optical sound pivot will not latch in. Consequently, when the projector fails to "latch-in" when the green start button is depressed, it is an indication that the exciter lamp is burned out. A further indication is that no sound will come from the speaker when the start button is held down.

1. Disconnect the power cord.

2. Remove the volume control knob and focusing knob by pulling them off their shafts.

3. Remove two screws at the front and two at the rear of the projector to free the cover. These screws are located nearest the top of the projector.

4. Lift the cover straight up and off the case.

5. Loosen the wing nut and move the retainer to one side off the top of the exciter lamp.

6. The exciter lamp can now be lifted off its base.

7. Position a new lamp on the base so that all three base "nibs" fit into the three holes at ends of slots in the bulb flange. The bulb will fit on these "nibs" in only one position, therefore, keep rotating the bulb until it fits correctly.

8. Move the retainer onto the lamp so it is centered over the top, and the lamp is still in correct position on its base.

9. Tighten the wing nut firmly (not too tight) and recheck the lamp installation. It should be positioned vertically and secure at the base.

10. Before installing the cover, insert a film cartridge, plug in the power cord and depress the green start button. If the projector "latches-in," projector continues to run, and sound is restored, install the cover and control knobs.

Installing an Extension Speaker

The jack on the rear panel, labeled "EXT SPKR" takes a miniature phone plug for connecting an extension speaker or headphones. When the plug is inserted into the jack the speaker in the projector is disconnected automatically.

TECHNICOLOR CORPORATION

LW (1/24/72)

OPERATING THE TECHNICOLOR 810
SUPER 8 CARTRIDGE PROJECTOR

Set-up and Operation

1. Place the projector on a firm, level surface with lens pointed toward screen. Plug power cord into an electrical outlet.

2. Insert Super 8 Cartridge containing your film into the cartridge slot in rear of projector. Be sure words "Super 8" imprinted on the plastic cartridge are upright and the arrows point toward the projector. The small rail along the bottom edge of cartridge fits into groove at bottom of cartridge slot. (Cartridge lock-out prevents accidental use of std. 8mm film cartridge).

3. Turn the control switch (on top of projector) to the "on" position, and the show is on -- instantly!

4. To focus the picture, rotate the lens barrel to the right or left.

5. To adjust framing, turn the framing knob on top of projector.

6. Your projector is fitted with a still-picture clutch for stopping and holding the film at any desired frame. To "freeze" the motion merely press the push-button (located in the center of the top of the projector) while the film is running. The film will remain "frozen" for as long as the button is held down and the button may be locked in a down position by pushing it forward.

7. Your projector is equipped with a special heat filter and dichroic lamp to prevent over heating when the still picture clutch is in use.

8. Special transformers on the Deluxe 810 enable the 150 watt lamp to transmit light equivalent to approximately 750 watts. Just flip the "Hi-Lo" switch on the back of the projector up for super brilliant movies or flip the switch down to slightly reduce the amount of transmitted light but increase the lamp life by up to 500%.

9. Turn the control switch "off" at the end of the film story, otherwise film will continue to repeat until projector is switched off. Always be sure to turn the projector "off" before removing cartridge.

Replacing the Lamp

To replace the LAMP, unplug power cord, turn projector upside down and follow these instructions shown on special plate:

1. Loosen two screws and remove rear cover.

2. Hold the lamp in one hand.

3. Push small pointed object against bulb stem until bulb pops out.

4. Rotate new bulb until stem key fits socket. Press in firmly.

5. To prevent damage to your projector, a "DCF" projection lamp must be used as replacement.

TECHNICOLOR CORPORATION

LW (1/24/72)

OPERATING THE KODAK CAROUSEL SLIDE PROJECTOR

Kodak makes a series of Carousel model projectors ranging in price from $80 to $800. Accessories we recommend for classroom use are the zoom lens and remote control. Projectors with these capabilities average from $125 to $150.

Loading the Slide Tray

1. It's embarrassing to have your slides shown upside down when you make a presentation. In this section you will be taught how to properly place the slides in the trays.

2. Pick up a slide and hold it in front of a source of light. The proper position for placing slides in the tray is to have the pictures upside down. Second, look closely at both sides of the slide. You will note that one side of the picture is dull (emulsion) and the other side shiny. The side that is dull should always face the screen.

3. Take the tray out of the carrying case and remove the lock ring from the top of the tray. Place all the slides in the tray. Start with the identification number, 1.

Set-Up and Operation

1. Take the projector out of the carrying case.

2. Place the projector, bottom side up, and remove the power and remote-control unit from the cord compartment.

3. Plug the remote-control and power cords in the rear of the projector. The red dot on the remote-control plug should be on top. Plug the power cord into an AC power outlet.

4. Seat the loaded slide tray with the identification number 0 opposite the GATE INDEX. Make sure that the tray is firmly seated.

5. Slide the power switch to HIGH or LOW position. (High and low lamp settings provide a choice of brilliance for different projection conditions and lamp economy).

6. Depress the button labeled FORWARD on the remote-control unit to put the first picture on the screen.

7. Center the lighted area on the screen. If the lighted area is larger than the screen, move the projector closer to the screen. If the lighted area is smaller than the screen, move the projector farther back.

8. If you want to raise the image on the screen, turn the ELEVATING WHEEL. If the image is not level with the screen, then try the LEVELING WHEEL.

9. You can also advance or reverse the tray without the remote-control unit. There are two buttons on the side of the projector.

Depress the forward button. Then depress the reverse button and return to the first slide. Check the identification number on the tray to see if you have the first slide.

10. Focus the image on the screen by adjusting the FOCUS KNOB which is above the reverse and forward buttons. (Some Carousel Projectors have Automatic Focus capability. Simply focus the first slide, and the projector automatically maintains correct focus).

11. You can also focus the image on the screen with the remote-control unit. Try it.

12. Change the slides by depressing the forward or reverse buttons, manually or with the remote-control unit. You are now ready to make your presentation.

General Operating Tips

1. Random selection of slides can be made rather quickly. If the identification number 0 is not opposite the GATE INDEX, depress the SELECTOR BAR. Hold it down firmly and rotate the tray with your hand till the 0 appears opposite the GATE INDEX. Release the SELECTOR BAR and remove the tray. This method can be used for tray removal also.

2. To remove slides from the tray, first remove the lock ring, then cover the tray with your hand or with a sheet of stiff paper. Turn the tray over to empty the slide tray.

3. If the slide-changing mechanism should become inoperative because of a defective slide, foreign object, etc., turn the coin slotted removal screw in either direction as far as it will go to retract the tray lock. Then lift off the slide tray. Now remove the defective slide and replace the tray on the projector.

4. Two of the three feet that the projector sits on are adjustable to assist in alignment of image on the screen.

After the Show

1. Remove the slide tray.

2. After showing your slides, the projector will be warm. Slide the power switch to FAN and allow the fan to run for several minutes until the projector feels cool; then slide the switch to OFF.

3. Lower the front of the projector by turning the elevating wheel. Retract the leveling foot.

4. Retract the lens by turning the focus knob.

5. Unplug the power and remote control cords. Fold the power cord by putting the two ends of the cord together and folding it in

about 4-inch lengths. Fold the remote control cord in the same manner. Put the cords into the cord compartment in the bottom of the projector.

Projection Lamp Replacement

You have a choice of two projection lamps -- ASA Code DEK (average 25-hour lamp life with power switch at HIGH -- 500-watt illumination and average 100-hour lamp life with power switch at LOW -- 425-watt illumination) or ASA Code CBA (average 50-hour lamp life with power switch at HIGH -- 500-watt illumination and average 200-hour lamp life with power switch at LOW -- 425-watt illumination). If you decide to install an ASA Code CBA lamp, observe several precautions:

1. Always grasp the lamp by the ceramic cap which fits over the top of the lamp.

2. To avoid leaving fingerprints, be careful not to touch the transparent portion of the lamp. If fingerprints are left on the lamp, wipe it carefully with a clean, soft cloth soaked in rubbing alcohol.

3. Leave the ceramic cap on the CBA lamp to insure adequate heat dissipation.

To replace a lamp, turn the projector bottom side up. Open the LAMP DOOR by turning the coin-slotted door screw counterclockwise until the door can be opened to the position illustrated. Do not force the door farther. Push the lamp RELEASE LEVER upward toward the lamp door to release the lamp from the socket. Then lift out the lamp.

To install the new lamp, first push the lamp release lever downward to its original position. Then place the center post of the lamp in the center hole of the socket and rotate the lamp until the key on the center post locates in its socket slot. Push the lamp in all the way. Close and secure the lamp door.

EASTMAN KODAK COMPANY

KAJ (9/72)

OPERATING THE GRAFLEX 400
RC FILMSTRIP PROJECTOR

Set-up

Place the projector on a table or stand at the point from which you will be projecting. Be sure the projector sets high enough to project over the audience. Then:

1. Plug the power cord into a standard wall socket.

2. Plug remote control unit into projector.

3. The control switch is located at the rear of the projector. It is a three-way switch. The first position turns on the lamp and the cooling fan. The second position turns off the lamp but the cooling fan remains on. The third position turns both lamp and cooling fan off.

4. Turn the switch to the first position and center the frame on the screen by turning the height adjuster located below the lens at the front of the projector.

Threading and Operation

1. Place the rolled filmstrip in the filmstrip carrier in the top of the projector.

2. Feed the leader of the filmstrip into the feed slot until it stops.

3. Turn the motion-sprocket knob while pushing the filmstrip into the feed slot.

4. Advance the filmstrip until it is coming out of the projector and fasten it to the take-up reel.

5. Adjust the framing knob for one complete picture. This can be done by pulling out on the motion-sprocket knob and turning until a complete picture is obtained.

6. Now focus the image by turning the lens until there is a clear-sharp image.

7. You are now ready for showing.

8. Advance the filmstrip by pushing the switch on the remote advance unit to the forward position and pushing the advance button.

9. To reverse, merely push the switch to the reverse position and push the advance button.

10. After the showing, rewind the filmstrip by hand and place back in the container.

11. Turn the control switch to the fan position and leave until projector is cool.

SINGER GRAFLEX CORPORATION

LW (1/24/72)

OPERATING THE OVERHEAD PROJECTOR

Set-up and Operation

1. Place the projector on a firm, level surface at a convenient operating height.

2. Insert power cord into an AC electrical outlet and turn on.

3. The projector itself is simple to operate. It has only three controls.

   a. An off-on switch located low in front of the projector.

   b. A knob to focus the screen image located on the arm that holds the projector lens.

   c. The lens itself tilts to allow raising or lowering of the image on the screen.

4. Place a transparency on the stage and turn focus knob slowly until image reaches a maximum clarity. Screen image elevation is changed by moving the top portion of the head upward or downward as required.

Automatic Thermal Switch

The cooling fan on some models is controlled by a thermal switch. This switch permits the fan to continue operating after the projector is switched off, until the internal temperature is reduced, then shuts fan off automatically.

Changing the Lamp

1. ALL POWER IS DISCONNECTED THE MOMENT THE STAGE COVER IS LIFTED. AS A FURTHER SAFETY PRECAUTION, HOWEVER, REMOVE POWER CORD BEFORE OPENING PROJECTOR.

2. Insert the eraser end of a pencil into the catch latch release located at the top front of the projector stage. Press inward slightly to release latch. Lift stage upward until the prop engages its retaining notch.

3. To close projector, move the stage prop forward slightly to disengage the retaining notch. Depress the latch slightly to permit proper closing.

4. Disconnect power cord; open projector.

5. For Double Ended Lamps remove by grasping either end and pushing in opposite direction while lifting lamp slightly upward.

   Install by putting one end of lamp into spring loaded holder, and pushing inward slightly. Then, lower other end of lamp into holder and release.

6. For single ended lamps remove by raising ejector lever to vertical position, automatically releasing tension on lamp. Then, merely lift lamp out of socket.

   Install by placing new lamp in holder and lowering ejector lever.

   (Note: Finger contact with bulb portion of lamp may reduce life. Grasp lamps only by end or use a soft cloth.)

BUHL PROJECTOR COMPANY, INC.

LW (1/24/72)

HANDMADE TRANSPARENCY PRODUCTION

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Participants will set up and operate an overhead projector demonstrating maximum screen coverage with avoidance of keystoning effect.

2. Participants will identify all materials which can be used for the production of handmade transparencies.

3. Each participant will make a **minimum** of five transparencies. Each of the following techniques or materials must be used at least once and may be used in any combination:

    1. clear acetate
    2. blue acetate
    3. styrene
    4. permanent color pens
    5. color adhesive film
    6. color pencils
    7. hand lettering of words
    8. dry transfer letters
    9. one overlay
    10. more than one overlay

4. Participants will demonstrate six ways of utilizing the overhead projector with the acetate roll.

5. Participants will name seven uses of handmade transparencies which can be used with the hearing impaired.

LRW
9/15/72

Materials

X-ray film
clear acetate
styrene
colored pens
colored pencils
dry transfer letters
color adhesive film
masking tape
coloring books
transparency frames

Procedure

1. Make a sketch of the content of the transparency. Be sure it fits within the frame opening to be used.

2. Tape a sheet of clear acetate over the sketch.

3. Use felt pens to color areas.

4. Use opaque and transparent marking pencils for lines, words, and to outline areas that were colored.

5. Mount the transparency on the back of a cardboard frame for use.

Principle: Adding Color

The addition of color to parts or areas of a transparency will clarify or give emphasis to the content of a diagram. Color can be applied with felt pens, colored pencils or color adhesives.

Felt pens

Many types of felt pens can be used. Most can be obtained at drug stores, variety stores or office supply stores. Depending upon the pen, lines of various thicknesses can be made. Inks co in a variety of colors and may be water soluble or permanent. These pens are useful for adding color to small areas of a transparency. Felt pens do not color a large area evenly. Because felt pen inks are transparent, each overlapping stroke builds up color and these irregularities become visible. But such imperfections should not be thought of as detracting from the instructional value of the transparency.

Colored Pencils

Wax based colored pencils, when handled properly, can produce an acceptable coloring effect. Hold the pencil at a flat angle and stroke only in two directions. Rub the colored area over with a strip of rolled paper. This helps to spread the color evenly overtthe whole area.

Color Adhesives

A wide range of colors and black-and-white shading patterns are printed on thin acetate sheets which have an adhesive backing. The adhesive backing is protected with another backing sheet. Color adhesives can be applied to any shape area and a number of colors can be used on a single transparency sheet.

It is difficult to set a piece of color adhesive exactly on an area when the adhesive is out to fit the area exactly. Follow this procedure in using color adhesive materials:

1. Lay a corner of the color adhesive sheet over the area of the transparency to be colored. Since the color adhesive should be mounted on the back-side of the transparency, do all the work with the transparency face down.

2. Lightly cut a piece of color adhesive slightly larger than the area to be covered. Use a sharp razor blade or an X-acto knife and cut through the color surface, but not through the backing sheet.

3. Peel the cut piece from the backing.

4. Place the cut adhesive on the area of the transparency and rub lightly to adhere. If a large area on a transparency is to be covered, place the cut color adhesive on the edge of the area and gradually adhere it across the area, smoothing with a finger or hand as it goes down. Do this carefully in order not to trap air bubbles under the color adhesive.

5. Cut the adhesive along the transparency lines that outline the area being covered. Try not to let your blade run off the lines as any cut into the clear acetate around the area of the transparency will be visible as a dark line during projection. Also cut carefully just through the layer of color adhesive, not into the acetate of the transparency.

6. Peel off excess color adhesive that remains outside the area. Rub that remaining within the area to insure good holding power.

MACHINE-MADE TRANSPARENCIES

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Each participant will demonstrate his/her ability to set up and operate the overhead projector in such a way as to maximize screen coverage and reduce keystoning and light spill over.

2. Participants will demonstrate their ability to make a thermofax transparency using styrene, a prepared master and permanent color pens and pencils to add color.

3. Participants will demonstrate their ability to make five thermofax transparencies using 533 film, and each one of the following techniques or materials. Each technique or material must be used at least once and may be used in any combination.

    1. Original master
    2. Prepared master using the blocking out technique
    3. Original master using paste-up methods
    4. Permanent color pens
    5. Colored pencils
    6. Color adhesive film
    7. One overlay
    8. More than one overlay

4. Participants will demonstrate their ability to make a thermospirit master from an original master.

5. Participants will name seven ways of using thermofax transparencies with hearing impaired children.

6. Participants will name six ways of using the overhead projector with the acetate roll in the classroom with hearing impaired children.

Materials and Equipment

533 Film	Permanent Pens	Masking Tape
Styrene	Thermofax Machine	Transparency Frames
Coloring Books	Grease pencils	Thermofax Carrier
Prepared Masters	Color Adhesive Film	

Principle

Through a heat process, the thermofax machine makes possible the preparation of transparencies from any carbon based original material in a matter of seconds. Original materials can be opaque and may have printing on one or both sides. Two types of thermofax prepared transparencies are presented here.

LRW
9/15/72

Procedure

1. Select original to be copied. Any carbon-base ink will do well as a master from which to make a thermofax transparency. You may use a printed original master (3M Company, Media Services & Captioned Films series, etc.) or you may make your own in heavy pencil, India ink, or on a typewriter. Also, such things as newspapers, magazines, checks, menus, tickets, coloring books, etc., which have carbon content will produce well.

2. Use a test strip to find the correct exposure. When doing a series from the same type master on the same type of film, you needn't continue using test strips.

3. Place film (type 533, 125, 127, styrene, etc.) on the master with the notch in the upper right hand corner.

4. Feed the two sheets through at the setting indicated as best by your test strips.

5. Separate the transparency from the master and mount on a frame with masking tape.

Helpful Hints

1. When using pencil to make masters, make the lines as heavy as possible for best reproduction.

2. When free-hand drawing a master for the thermofax process, sketch it out first with a red colored pencil, then darken in with India ink or pencil. When master is passed through machine, red lines will not appear.

Utilization Techniques

Ways of using the overhead projector and acetate roll in classroom for the deaf/hard of hearing.

1. Speech drills

2. Calendar/weather work

3. Note-taking

4. Test confirmations

5. Opaque objects or silhouettes

6. Announcements - in classroom - at school entrance

7. Written confirmation of conversations

Utilization Techniques, Continued

8. Use pencil (swizzle stick) as pointer on the overhead stage.
9. Use heat resistant flap over lens to cut off light to screen, but leave stage light on face to facilitate lipreading or manual communication in darkened room.
10. Use flap to smooth transition between transparencies.

Ways of using overhead projection transparencies.

1. Adding information with overlay.
2. Changing information with overlay
3. Providing for fill-in (matching)
4. Coordinating information with student ditto or student transparency.
5. Sharing student language work.
6. Illiciting language - transparency stimulus
7. Asking questions
8. Sequence stories
9. Revealing portions of 3, 7, 8 with progressive disclosure
10. As a template to correct test papers.
11. Combining with 16mm film, filmstrip, slides, and auditory training materials.
12. Reading speed
13. Visual memory
14. Using pieces of acetate to arrange sentences or words

SLIDES - EKTAGRAPHIC VISUALMAKER

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

( ) 1. Participants will be able to name five ways of using slides in the classroom with hearing impaired children.

( ) 2. Participants will be able to name three types of instamatic film and indicate the type which results in slides.

( ) 3. Each participant will be able to take two pictures outdoors and two pictures indoors with flash with an instamatic camera.

( ) 4. Each participant will demonstrate the procedures for copying various size pictures with the Ektagraphic Visualmaker.

Material Needed

Ektagraphic Visualmaker
Ektachrome film - Type 126
Flash Cubes
Source of Pictures to Copy (Magazines)
Colored Paper
Scissors

Principle

Small (2' X 2') full color slides can be obtained from live scenes, or copied pictures or artwork. These can then be ordered as desired and projected on a screen of any size.

Procedure for Taking Pictures Indoors and Outdoors

1. To load camera, open back by pushing up the latch located on the right side (with the camera facing away from you). Insert the 126 cartridge (it only fits one way).

2. The Instamatic 304 automatically sets the exposure for outdoor pictures. To determine if there is enough light check the warning bar, low and to the right of the viewfinder. If the bar is visible there is not enough light. You may proceed with your picture if enough light exists.

3. Take two pictures outdoors.

4. To take your two pictures indoors, insert a flashcube into the receptacle on the top of the camera. One flashcube will take four flashes, rotating automatically. Make sure your subject is between four to nine feet from the camera. Subjects closer than four feet will be too light and subjects beyond nine feet will be too dark. Take two pictures with flash indoors.

Procedure for Making Slides With the Ektagraphic Visualmaker

1. Choose the pictures you want, construction paper for backgrounds, and any other letters, or written information you need in your slides.

2. If camera is empty, load with Ektachrome or Kodachrome film (20 slides per roll). You will need to use a flash with each shot, even outside. (One flashcube will take four flashes, rotating automatically).

3. Place the Instamatic 304 camera in either the 8" X 8" stand or in the 3" X 3" stand, according to the size of your picture.

4. Center your picture within the inside of the black frame, allowing room for captions and written materials especially:

   Keep fingers out of the picture area!
   Keep hands off white reflector at all times!
   You will see nothing by looking into the viewfinder...
   that's normal, so don't panic!!!

5. Snap the picture.

6. Count to four -- four flashes on one flashcube.

   Note: Visualmaker will take three-dimensional pictures, such as glasses, bugs, scissors, hands, etc. The depth of field limitations are as follows:

   8" X 8" stand - 2" above and 1 1/2" below subject plane
   3" X 3" stand - 1/2" above and 3/8" below subject plane

Helpful Hints

1. Slide-making techniques

   a. Choose the background carefully. Use a plain colored paper or cloth. In almost every case, a color is better than black and white.

   b. Remember the depth-of-field limitations.

   c. Three-dimensional objects will cast shadows.

   d. Simple rules for good layouts must be followed. The most important elements in the layout should be placed near the center of the subject area.

   e. Provide for legibility.

2. Handle your color film with care.

   a. Use film prior to expiration date printed on carton.

   b. Process film as soon as possible after it's exposed.

   c. Keep your color films, slides, and prints in a cool dry place. Keep films out of the car trunk, glove compartment, and off of the back-window shelf.

   d. Protect your color negatives, prints, and slides from prolonged exposure to bright daylight.

   e. Keep slides in a slide tray or slide file to protect them from dirt.

Utilization

Use Slides:

1. To motivate and arouse interest.
2. To stimulate creative expression.
3. To enhance 'visual literacy."
4. To develop language (Prepositions-comparatives-verbs).
5. To provide a heuristic learning experience.
6. To induce clear understanding.
7. To develop perception.
8. To modify and/or supplement commercial and prepared instructional materials.
9. To enable the teacher to provide for individual differences.
10. To illustrate a learning sequence.
11. To provide a change of pace.
12. To develop concepts that can't be verbalized.
13. To introduce a unit of work.
14. To illustrate and complement a presentation (teachers and/or students).
15. To prepare the class to see a motion picture.
16. To prepare the class for a field trip.
17. To involve the learner.
18. To contrast methods, time relationships, and physical relations.
19. To illustrate a story.
20. To provide an experience that is impossible to do on a field-trip or duplicate in the classroom.
21. To provide for prolonged observation.
22. To serve as a means for review.
23. To assess the learners' knowledge/abilities.
24. Programming spelling.

BLACK AND WHITE PHOTOGRAPHY (POLAROID)

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Each participant will make a four picture sequence story using the Polaroid camera. The pictures will be given to the instructor in random order and he will correctly sequence the pictures without help from the participant.
2. Each participant will demonstrate the procedure for taking a Polaroid picture with and without flash.
3. Participants will list four ways the Polaroid picture can be used in the classroom for the hearing impaired.
4. Participants will make one informal portrait using the "Big Shot" camera.

Materials

1. Polaroid "Big Shot"
2. Polaroid Big Swinger
3. Polaroid Color Pack II
4. Polaroid 320
5. Polaroid Black and White film
6. Flash Unit #268
7. Polaroid Color Film
8. M3 Clear Flash Bulbs
9. AG-1 Clear Flash Bulbs
10. Magic-X Flash Cubes
11. Standard Flash Cubes

Procedures

1. If the camera is of the folding type, open the front and push up on the button marked "1."
2. Grip the front of the camera, where the lens is, and pull out until it snaps into a locked position.
3. If the camera is not loaded, open the back by turning the lever on the bottom of the camera.
4. Release the red button to release the rollers for cleaning.
5. Snap the film pack in place with the film facing the lens.
6. Snap the back closed.
7. Pull out the first black tab. This removes black paper from in front of the film.
8. Focus by pushing back and forth on the buttons marked "1."

9. Look in the viewfinder marked "focus" and align the two images until they appear to be one.
10. Push lever #3 all the way down until it stays down.
11. Aim and press red button marked '2.'
12. Pull out small white tab - large black tab will pop out.
13. Pull black tab all the way out of camera at medium speed without stopping.
14. Time for 10 to 15 seconds (B & W).
15. Separate picture from backing.
16. Coat B & W photos with stick of material that was in the box of film (Color pictures are not coated).
17. Allow picture to dry before handling.

Helpful Hints

1. Pull the backing off of picture diagonally starting at the printed number.
2. Wait until the picture is completely dry before handling.
3. Fold tab in half after developing. This keeps excess developer from smearing on everything it touches.

Rationale for Photographs

A polaroid picture, or any small still picture, must be thought of as an individual or small group instructional material. This will control the format of presentation and the nature of use. It may serve these instructional purposes:

1. Involves student by arousing his interest.
2. Motivates learning.
3. Provides a child with "expressive" visual language.
4. Recalls experience with emphasis on students' interest.
5. Provides immediate images to give concrete meanings to word symbols.
6. Prevents and corrects misconceptions.

7. Enriches and livens student news and reports.

8. Reviews and summarizes.

Advantages:

1. Instantaneous pictures - you know when you've missed an important shot.
2. Fast! 10 seconds to 1 minute development time: ready to use.
3. Easy for teacher and students to use.
4. Fast film permits pictures under low light conditions.
5. No need to shoot any specific number as each picture is separate, not on "a roll" of film.
6. Inexpensive: 25 cents per shot (b & w).

Disadvantages:

1. Not easily shared with entire class.
2. New camera doesn't produce slides.
3. Color pictures are expensive - more than 50 cents per shot, plus flash for indoor shots.
4. Sometimes miss the action while focusing.
5. Lots of trash and can be messy.

Ideas for Use

1. Who pictures: For bulletin boards -- staff members, new children, etc., family members, classroom visitors.
2. Expansion of collection of noun pictures by photographing things brought to school by the children for use in children's language books, speech books, news books, etc.
3. Pictures to enliven experience charts in reading readiness.
4. "Our Class" book for the entire year, with pictures of major class activities, parties, projects, beginning and culminating unit activities, class visitors, fieldtrips, etc. Children can add captions...
5. Self-instructional manual or booklet, or poster.
6. To record dramatization of a story.
7. Records of student investigations and projects i.e. science experiments of plant growth, changes, etc.

8. Records of field trips -- with emphasis on what impressed the children.

   a. Booklets made on return encourage child's creativity in arrangement, decoration, and written language.

   b. Correlate with overhead projector use...randomly give each child one picture to describe (require one word, sentence, paragraph according to level). Time limit advisable! Children write on acetate sheets rather than paper...collect pictures and transparencies. Project transparencies and let one child match it to the correct picture. Continue through all...keep score perhaps. Redistribute and repeat (after cleaning acetate sheets).

   c. Game board: After language work, arrange pictures on a game board. Require various responses to keep place when landing on picture...and fill in other spaces with directions. (Skip next turn...) or questions (Where did we go on April 12?) Let your imagination go!!!

DRY MOUNTING

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Participants will dry mount five pictures on cardboard which will result in all pictures being evenly and firmly bonded to cardboard with no visible mounting tissue at the edges of the picture.

2. Participants will list five uses of dry mounted pictures which can be used with hearing impaired children.

Equipment and Materials

Dry Mount Press	Magazines or other visuals
Tacking Iron	Brown Wrapping paper
Mounting Board	Dry Mount Tissue

Principle: Dry Mount tissue is a thin sheet of paper, similar to wax paper, which is coated on both sides with a high grade thermoplastic adhesive. When heat and pressure are applied with the dry mount press or a hot iron, a strong bond is formed between the material to which it has been applied. Most materials can be mounted using this method in a matter of a few minutes.

Procedure

1. Set temperature control on press to 225 degrees.

2. When green light goes out, press is ready.

3. Preheat both picture and mounting board in press for 30 seconds.

4. Attach a sheet of dry mount tissue to the back of the print with a heated tacking iron. Tack the tissue in several spots in the center of the picture. Do not lap tissue joints.

5. Trim the tissue and print together.

6. Position the picture on the mount and tack the corners of the tissue to the mount.

7. Cover face of picture in press with clean, smooth paper.

8. Clamp down press 5 to 45 seconds for most mounting work.

9. Remove material from press and place immediately under weight until cool.

Overcoming Dry Mounting Problems

The serious shortcoming with the dry mount method for mounting pictorial materials is the possibility that bubbles of steam will form under a picture when heat is applied, either in the dry mount press or with the hand iron. The formation of steam is due to the presence of moisture in the cardboard or picture paper. Also, when heat is applied some papers naturally stretch and this may entrap air, resulting in one or more bubbles.

Most bubbles can be eliminated from forming by pre-drying the cardboard and picture before starting the mounting process. Further, if you place the drymounted picture under the weights for cooling as quickly as possible, this will also eliminate many of the problems with bubbles.

In spite of these precautions, bubbles will appear at times, and especially so when the air in the working room is relatively moist or the cardboard has been stored under moist conditions. If bubbles appear follow this procedure:

1. Re-apply heat and pressure with the hand iron or in the dry mount press. Be sure to place the mounting immediately under a weight after sealing.

2. If bubbles persist, puncture each one in a few places with a pin. This will release the steam.

3. Re-apply heat and pressure for 5 - 10 seconds and then place the mounting again immediately under a weight. Sometimes instead of using a weight this time, it is effective to firmly rub the affected area of the mounted picture with a wadded handkerchief or other cloth.

Unfortunately, when bubbles form the paper may stretch. Then when the pressure is released under the picture a wrinkle forms in the paper. There is no way of eliminating such wrinkles.

Utilization

Ways of using flat pictures which have been dry mounted and laminated.

1. Bulletin board mounting

2. Rejuvenate old materials

3. Add strength to materials for "long life"

4. Study prints

    a. Write on laminated surface

b. Identification of parts of pictures

c. Completion of language exercises

1. fill in

2. matching

3. completing sentences

4. original language

LRW:9/15/72

LAMINATING

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Participants will laminate three - five pictures utilizing the dry mount press and thermofax machine which will result in an even, smooth adherence of laminating film to the pictures.

2. Participants will identify five ways laminating techniques can be used with hearing impaired children.

Equipment and Materials Needed:

Dry Mount Press	Sealamin
Thermofax Machine	Thermofax
Thermofax Carrier	Laminating Film
Visuals to be laminated	Laminating Card

Principle:

Lamination is simply the addition of a clear protective coating which is bonded permanently to the visual.

Procedure: Sealamin Process

1. Set press temperature at 300° and allow press to warm up.

2. Increase pressure of press by placing 1/4" masonite board under sponge rubber pad (laminating requires more pressure than dry mounting). Board should be approximately same size as pad.

3. Remove any excess moisture from the material by inserting it in a carrier of kraft or wrapping paper and placing it in the press, without locking, for about 10 seconds (the paper carrier will absorb the moisture); up to 1 minute may be required in very humid weather.

4. Cut a piece of laminating tissue (regular or matte) large enough to cover the material with some to spare. Place the tissue with the dull (adhesive) side against the material.

5. Smooth out the film with your hands to remove the air between the film and the material since pockets of air will cause wrinkles. Also, the static electricity created by rubbing will help keep the film from wrinkling as it is put in the press.

6. Insert the work in a carrier of release paper and place in the press. Note: It is important to use the release paper carrier because without it the laminating film will stick to the platen of the press.

7. Remove the work after 1 minute. In some cases, this may not be enough time; if there are still small areas that have not sealed completely (these areas will show up as blisters), trim the edges and place the work back in the press for another minute.

8. Remove work and place under a weight to cool for 30 seconds.

9. Unless the material is already mounted on a rigid substance, it will curl at this point. To overcome this, it should be laminated on the other side as well.

Thermofax Process

1. Set the dial control on the machine at the slowest setting.

2. Select an item to be laminated.

3. Assemble the materials in the following order:

   a. Olive colored interleaf paper on top

   b. Laminating film (textured side toward visual)

   c. Original (face up)

   d. Laminating card

4. Put materials in carrier.

5. Insert the materials into the machine.

6. Trim excess laminating film.

Caution: Because of the nature of the machine, heavy weight materials such as card stock cannot be laminated by the thermofax process.

Helpful Hints:

1. If bubbles appear with the sealamin process, poke the bubbles with a pin and insert in the press for another 15 to 20 seconds.

2. A page may be "double-laminated" to display both sides. It is not dry mounted onto cardboard; rather, dry the page, then tack an envelope of laminating film around the page (being certain all corners are tacked together). Continue as with laminating a dry mounted picture.

3. Small pictures, etc. may be laminated without first being dry mounted. Simply tack the laminating film to the center of the small picture(s) and then tack the laminating film to the cardboard . . . continue as with laminating a dry mounted picture. (Be certain the picture is entirely surrounded by cardboard to which the Sealamin will adhere.)

4. Thermofax laminating film can also be used successfully with the dry mount press. Simply use the thermofax laminating film in place of Sealamin.

Laminated Displays*

Since a Seal press has no rollers restricting it to flexible materials you can laminate porous prints (not photographs) mounted on rigid materials such as plywood or masonite.

To make a standing display, for example, cut a piece of masonite to the size of the material to be displayed. Mount the material to the masonite using dry mounting tissue. Leave the work in the press for 45 seconds at 270° F. (Thicker materials like masonite and plywood require more time, since the heat has to penetrate the entire board before the adhesive takes.)

Set the press at 250° F. Laminate the front of the plaque with glossy Sealamin following the general instructions above. Leave the work in for a minute. Be sure to cool under a weight. Then apply a simple cardboard stand to the back of the plaque. Because the masonite provides rigidity, it is only necessary to laminate one side of the plaque.

Laminating Oversize Wall Displays*

It doesn't matter if the chart or map you wish to laminate is wider than your roll of laminating tissue. You can still laminate it in your press by laminating in sections. After removing the moisture from the chart or map (see general instructions above) take a full width strip of laminating tissue and place it over one end of the material with the dull (adhesive) side down. Line the strip up parallel to the edge, overlapping slightly.

Place that part of the chart in the press at 250° F. NOTE: Be sure to place the work inside a release paper carrier because without it the laminating film will stick to the platen of the press.

Remove work after one minute. If there are still small areas that have not sealed completely (these areas will show up as blisters), put the work back in the press for another minute. Remove work and place it under a weight to cool for 30 seconds. Trim off the excess laminating tissue around the edges. One side of the map has now been laminated.

Place another strip of laminating tissue over the other side of the material. You can either butt or overlap the previously laminated section. An overlap of 1/8" or 1/4" generally gives best results. Rub the edge of the new strip lightly with the side of your hand as you place it down. This will build up static electricity creating temporary adhesion, so that the film won't move when placed in the press. Place this end of the chart in the press and repeat the basic laminating steps.

Laminating Thin Materials Like Newspaper*

When laminating thin materials such as newsprint, you should laminate both sides of the work to prevent curling or bowing. This goes for material mounted on thin mounting board as well as paper. Make sure you have smoothed all the air out between the film and the material to be laminated. If air pockets remain, wrinkling will occur. For this type of two side lamination, use 325° setting for 60 seconds.

Creating Textures by Crinkling*

You'll be amazed at the unique texture and visual effect that can be added to photographs, magazine illustrations, drawings, by "crinkle laminating."

Simply cut a piece of laminating tissue (gloss or matte) slightly larger than the material to be laminated and roll it up in your hand until it is well wrinkled. Smooth the laminating tissue back out and place it over the material to be laminated, dull (adhesive) side down. Then just follow the basic laminating directions above.

Utilization

1. Bulletin board mounting.
2. Rejuvenate old materials.
3. Add strength to materials for "long life."
4. Study prints.
    a. write on laminated surface
    b. identification of parts of pictures
    c. completion of language exercises
        1. fill in
        2. matching
        3. completing sentences
        4. original language

*Credit Seal, Incorporated, Derby, Connecticut

LRW:9/15/72

COLOR LIFTING

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Participants will color lift one picture each for the transparafilm process, the thermofax process, which will result in a transparent picture free of a clay residue.
2. Participants will list two ways a color lifted picture can be used in the classroom with hearing impaired children.

Materials and Equipment:

Dry Mount Press
Tacking Iron
Thermofax Copying Machine
Visuals to be lifted

Sealamin
Thermofax Laminating Film
Thermofax Carrier
Laminating Card
Release paper

Procedure: Sealamin Process

1. Set dry mount press at 275°.
2. Set tacking iron at highest setting.
3. Select picture to be lifted.
4. "Clay test" picture.
5. Dry visual in press for 30 seconds.
6. Set up a pan of soapy water (Ivory dish soap works the best -- it's also gentle on your hands).
7. Cut laminating film slightly larger than usual.
8. Place dull side of film against the surface of the visual.
9. Place in a carrier of release paper for 30 seconds.
10. Remove and place in a pan of soapy water.
11. After 10 - 15 minutes peel paper off of film.
12. Return to water and gently remove excess clay residue.
13. Hang to dry.

14. Spray with clear plastic spray or laminate again on back side of transparency.

15. Mount on transparency frame.

Thermofax Process

1. Set dial control on the machine at the slowest setting.

2. Select an item to be laminated.

3. Set up a pan of soapy water.

4. Assemble the materials as follows:

    a. Olive colored interleaf paper on top

    b. Laminating film (textured side toward visual)

    c. Original (face up)

    d. Laminating card

5. Insert materials into machine.

6. Put laminated visual in soapy water.

7. Remaining steps are same as Sealamin process.

Helpful Hints

1. Try to select visuals that are free of creases or surface imperfections.

2. Clear contact paper works also. Just contact it to the surface of the visual and place it in soapy water.

Utilization

1. Transparencies - Both black and white and color

2. Picture Box

LRW:9/15/72

RUBBER CEMENT MOUNTING

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. The participant will mount two pictures by the rubber cement method which will result in all pictures being firmly and evenly bonded to the cardboard with no visible rubber cement around the edges of the picture.

Materials

Rubber Cement
Wax paper
Magazines or other visuals
Rubber cement and brush

Principle

Rubber cement is a quick, easy and clean method of mounting paper to paper, wood, cloth, glass, or many other smooth surfaces.

Procedure

1. Select a visual and trim to desired size.
2. Place visual on mounting board and make small guide marks in each corner with a pencil.
3. Apply a thin even coat of cement to the marked area of the mounting board.
4. Apply a thin even coat of rubber cement to the back of the visual.
5. Allow to dry several minutes until cement appears dull.
6. Place two pieces of wax paper edge to edge on the cemented surface of the mounting board. Wax paper will prevent adherence during positioning of the visual.
7. Remove one of the wax sheets with a "snap" while holding the other end of visual in place.
8. Remove the other wax sheet with a "snap" in the same manner.
9. Smooth down the surface of the visual starting in the center and rubbing toward the edges.
10. Remove excess cement by rubbing it with your finger or an eraser.

Helpful Hints

1. Be sure visual is properly positioned before pulling wax paper out. Once visual is adhered to the surface, there is no moving it.
2. If cement is too thick, use rubber cement thinner.
3. If colored card stock is used, test it on a scrap piece first.
4. Keep the lid on the jar of cement tightly closed when not in use.
5. Be careful not to get cement on photographic surfaces. The sulphur in the cement may react with the silver on the photograph to stain the picture.

Utilization

Ways of using flat pictures which have been rubber cement mounted:

1. Bulletin board material
2. Children may mount pictures by this method.

LRW:9/15/72

LETTERING

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

1. Participant will name all the components necessary for WRICO and Rapidograph lettering.

2. Each participant will letter her/his name on a name tag with the Rapidograph and with the WRICO lettering set letter his/her name on a desk name plate.

3. Examine seven examples of WRICO and Rapidograph lettering and identify the mistakes in each example.

Material Needed

WRICO stencil guide
Brush pens
Guide holder
Name tag
Desk plate
Ink

Principle

The pen traces the letter opening in the stencil guide. Lettering from about one-half inch to four inches in height can be prepared.

Procedure

1. Select stencil guide

Examine the information printed on the lower center part. It looks like this:

WRICO
GUIDE NO. AC75
Use with Brush Pen C or Felt Pen CF

A - letter style (other styles have codes D, BF, T, MS)
C - capital letters on stencil
L - lower case letters on stencil
N - numbers on stencil

X - WRICO Signmaker stencils are based on a code of 100 for 1 inch lettering.

WRICO Brush pens are available in 5 sizes: A (thinnest), B, C, D, E (thickest)

2. Select brush pen

Each stencil guide requires a certain pen size for proper use. This is indicated on the stencil guide below the guide number.

3. Select guide holder

The indication of which side of the guide holder to use is based on the pen size that the stencil requires. This difference in elevation is necessary in order to raise the stencil from the paper and thus eliminate the possibility of smearing ink while lettering. The larger letter size stencils must be raised from the paper more than required for the smaller stencils.

4. Set up guide and holder

Tape paper or cardboard to the table. Align the guide holder with a T-square, being sure to have the proper edge of the guide holder upward. Set the stencil on the guide holder.

5. Fill pen

Turn the metal collar (just above the black handle shaft) so the tip of the brush is flush with the lower tip of the pen. If the brush sticks out beyond the tip it will scratch paper. If the brush is recessed inside the tip ink will not flow to the paper.

To fill the pen, plunge the brush portion into the ink bottle and release it. Note the grooves or channels in the brush portion (the "brush" name is derived from "wire brush"). The ink is held in the grooves. One plunge will fill the channels. Enough ink is held to make a few letters. Try not to dip the tip of the pen into the ink, just plunge the brush part. Ink on the tip will stain the stencil.

6. Make letter

Hold the pen in a vertical position so the tip is flat on the paper. Go over a letter more than once as necessary to make even, crisp lines. Be sure to get into the corners of letters to complete the edges properly.

Helpful Hints

1. Judge letter spacing according to what looks proper. You will improve with practice.

2. As you gain experience try to start near the center of a letter and work to the edges. This will eliminate the globs of ink that collect and fatten ends of lines.

3. If you make an error while lettering let the ink dry. Lightly scrape the surface ink with a razor blade. Coat the error with Snopake or other correction fluid. Re-letter over the error.

4. When you are done with a brush pen wash it under running water and dry. Do not leave it with ink drying in it. Always cap the felt pens as soon as you are done or during brief intervals when you are not lettering with them.

   A special, thinner ink is used in WRICO felt pens which may run or bleed on cardboard or paper.

Utilization

1. Bulletin Boards
2. Permanent Charts or Posters
3. Masters for Thermofax Transparencies
4. Slide and Movie Titling

GLG:9/72

INSTANT ART

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State Univeraity
Las Cruces, New Mexico 88001

Objectives

1. Each participant will make a poster traced from a projected transparency from a filmstrip, slide or overhead projector and color it with available ink and paints.

2. Participant will name three ways instant posters can be used in the classroom.

Materials and Equipment

filmstrips
slides
overhead transparencies
pencils
pens
filmstrip projector
slide projector
color paints
color pens
brushes
masking tape
cardboard
overhead projector
carts for projectors

Principle

The "Instant Art" method of making posters for the classroom is a quick and easy method that requires little or no artistic ability on the part of the producer. It is essentially tracing over a projected picture onto the blackboard, poster board or paper.

Procedure

1. Select the desired visual from a filmstrip, slides or an overhead transparency.

2. Set up the selected projector and project the image on the wall.

3. Fix a piece of 22" X 28" poster board to the wall.

4. Move projector forward and back until you obtain desired image size.

5. Sketch in with soft lead pencil. Periodically stand in the light of the projector to determine progress of work.

6. Remove and draw in with India ink or magic markers.

7. Color in with paints, inks, or markers.

LW (11/10/71)

Utilization

1. Same procedure may be used to draw an object on a chalkboard with colored chalks.

2. Bulletin board display.

3. Display posters of any objects, animals, etc.

4. Displaying personal things from your travels.

5. It's easy and fun for the children to do this type of work. (It's even easy enough for teachers!)

DIAZO PAPER POSTERS

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

1. Select your master. This may be a transparency, slide, filmstrip frame, photographic negative, or an opaque picture. The greater the contrast between the background and the figure, the clearer the print will be.

2. Turn the lights out. Tape the diazo paper on the wall with the yellow-colored emulsion surface facing you.

3. Project your master on the diazo paper in a darkened room. Check the exposure by quickly turning on the lights and checking the emulsion. If the paper has been exposed for an adequate amount of time, a middle grey tone will look white, not the original yellow.

4. Ammonia fumes are needed to develop diazo paper. Use a plastic garbage container with a tight-fitting cover. Place a smaller pail with some ammonia at the bottom of the plastic container.

5. Put the exposed diazo paper inside the container, and cover it. The diazo print cannot be overdeveloped because once the dye reaches a specific point, it will become no darker. Therefore, if the image looks light, place it back in the container for additional development.

Helpful Hints:

1. Some colors may not come out as you may have expected.

2. Avoid exposing the diazo paper to room light or sunlight. If you are in a lighted room, keep it covered and, if possible, unwrap it and prepare it for exposure in a darkened room.

3. Place your projector in a place where it will not get jarred.

Utilization:

1. Posters
2. Maps
3. Charts
4. Bulletin Boards
5. Graphs
6. Diagrams

Diazo Paper Producers:

General Aniline and Film Corporation
140 W. 51st Street
New York, New York 10020

Diazo Paper Producers:

Blu-Ray, Incorporated
Essex, Connecticut 06426

Keuffel and Esser Company
Hoboken, New Jersey 07030

Technifax Corporation
Holyoke, Massachusetts 01040

Charles Breening Company
2320 West Holly
Phoenix, Arizona 85009

Cost of Materials:

Diazo paper comes in different sizes, colors, exposure speeds and with different backings. Prices vary with the type of paper and your area. Therefore, these are only approximate costs.

Charles Bruning Company

Revolute Direct-Image; Blue/Black Color

8 1/2 X 11	$ .13/sheet	$ 3.17/250 sheets
24 X 36	$ .11/sheet	$25.13/250 sheets

Technifax Corporation

Blue-line/Black-line Paper; Blue/Black Color

8 1/2 X 11	$ .12/sheet	$ 2.89/250 sheets
24 X 36	$ .10/sheet	$24.20/250 sheets

References

Instructors Guide to Diazo Whiteprinting, Charles Bruning Company, Phoenix, Arizona, 1970.

Making Better Prints and Copies with Diazo, National Association of Blueprint and Diazotype Coaters.

Udall, Lyle V. "The Diazo Process and It's Applications," Reproductions Reference Guide, ed. Thomas Grady Nanny, Jr., 3rd ed., New York: Wolf Business Publications, 1963.

Udall, Lyle V. "Diazo Applications," The Reproductions Encyclopedia, ed. Thomas Grady Nanny, Jr., 4th ed., New York: Wolf Business Publications, 1965.

GLG:9/72

TV PRODUCTION

Southwest Regional Media Center for the Deaf
Box 3AV, New Mexico State University
Las Cruces, New Mexico 88001

Objectives:

1. Participants will plan a three-to-five minute television program which meets the needs of an instructional problem formulated by the participants.

2. Participants will demonstrate their ability to make the proper hookups on the equipment available.

3. Participants will operate television equipment including a camera and a video tape recorder demonstrating good camera technique and proper recording procedures.

4. Participants will demonstrate two methods of titling and captioning appropriate to their instructional problem.

5. Participants will demonstrate their ability to make the proper hookups for taping off of the air commercial programs.

6. Participants will demonstrate their ability to edit and dub sound using the equipment available.

7. Participants will demonstrate their ability to playback their three-to-five minute programs utilizing the equipment available.

8. Participants will identify four advantages of teacher prepared television programs as an instructional medium in the classroom for the hearing impaired.

9. Participants will name seven ways in which they could use television as an instructional medium in the classroom for hearing impaired students.

Advantages: The use of television equipment in education has many advantages. Here are just a few:

1. It shows motion.

2. Programs or skits may be recorded and saved for use at a later date.

3. Or you can record a program and play it back immediately (immediate reinforcement).

4. Programs can be interrupted for discussion or student response.

5. Equipment is portable. Most porta-pac's can be slung over the shoulder and taken anywhere.

6. Most of the equipment is easy to hookup and operate.

7. It can be used with other forms of media (still pictures, slides, etc.).

8. Sound can be recorded synchronized with the visual. This is very difficult with 8mm film and the cost is prohibitive for sound synchronization with 16mm film.

Equipment and Materials:

Video tape recorder
Video camera
Microphone.
Playback Monitor
Video tape and take-up reel
Necessary cables

The Script:

To produce an acceptable television program, you first need a script. The television script contains all of the necessary audio and video information needed to do a complete show. There are two types of scripts that you should be concerned with. (1) The fully scripted show, and (2) the semi-scripted show.

The fully scripted show includes every word of dialogue that takes place during the show, as well as detailed video instructions. Dramas, comedies, news shows, or most commercials are examples of fully scripted shows.

The semi-scripted show indicates the dialogue, but does not spell out each word. This type of script leaves a great deal of room for ad-lib commentary or discussion. The important part is that some specific cue lines should be used to help the director give the show some direction, and to help the cameramen to determine their next move.

There is also the show that is not scripted. Normally, it is very difficult to script the kinds of things that may happen on a field trip. This type of show is taped with an over-the shoulder portable tape recorder and the script is what ever happens spontaneously with the kids. You should, however, have some objectives in mind as to what it is that you want this tape to do when it is finished. From this, generate an outline of events that you hope to put on tape during the trip and then "do it."

The Storyboard

The next step in making your television program is the Storyboard--a script in pictures. The storyboard is simply a visual representation of your script. It can be a simple sketch with stick men or could utilize polariod pictures as a representation of each scene. Each time the major action in a scene changes, you should have a

visual representation of that new scene. Storyboards are best done on 3 X 5 or 5 X 7 index cards. If the action is found to be out of sequence, it is a simple task to rearrange the cards before the actual shooting.

If you tend to think verbally instead of visually, relax! Read comic books!! They are great for presenting a story line as a series of still pictures. Your students will probably loan you some of theirs.

Equipment Set-up

Most portable video-tape equipment is not as complicated to set up and operate as it may seem. This equipment for the most part is foolproof. You cannot damage it by plugging something in the wrong place or by throwing the wrong switch at the wrong time.

Although you may work with any one of six or eight different makes of equipment, they all have similar components, hookups and operating controls. The following items are common to all makes of video tape equipment.

1. All video tape recorders have a threading diagram either on the machine or inside the cover of the machine. There is no need to memorize the threading operation.

2. All television cameras have a very sensitive vidicon tube (video tube) in them. If this tube is exposed to too much light, it may be damaged. To prevent this, hookup the equipment and turn it on. Before removing the lens cap, turn the camera on and make sure the f. stop is set to its smallest aperture setting f. 22. Then remove the lens cap and slowly open the f. setting of the lens until the picture is acceptable. There is no need to open the lens any further than is necessary to produce an acceptable image.

3. In most cases, there is only one way to hookup this equipment to make it work. Power cords for camera, monitor and video tape recorder are designed so that they can only go in one place, so there is no need to worry about improper hookup.

So now you've got a video tape recorder, a TV camera, a TV monitor, a michrophone and a number of assorted cables, all of which must be assembled to work as a complete unit. To do this successfully try following these logical steps.

1. First of all, you have to get electrical power to the camera, the tape recorder, and the monitor. This is a simple matter of identifying the power cord, and plugging it into a wall socket. There may also be several power recepticals located on the back of the recorder for powering TV cameras or monitors.

2. Next you have to get the picture from the TV camera to the video tape recorder. You will have one of two types of cords for this.

   a. One has six prong male and female ends. The female end plugs into the TV camera at a receptacle marked "Video out" or "Ext. Sync." The male end goes into the tape recorder at the receptacle marked "Camera," or "Video in."

   b. The other cord has a single prong male adaptor at both ends. This is the type that has a screw on type collar to hold it in place. Put it in the receptacle on the camera marked "Video," "Video out," or "RF." Place the other end of the cord in the video tape recorder in the receptacle marked "Video in." You now have a video signal to the tape recorder.

3. Now you need to put a visual signal into the monitor for viewing playback and monitoring the program that is being video taped. One of two types could be used for this.

   a. One has a single prong male adaptor at both ends. One end of this cord goes into the "video out" receptical of the recorder and the other end goes into the receptical marked "video in" or...

   b. The other is called an eight pin connector and is used specifically with the Sony units. It looks like a small rectangular box on both ends of the cord. One end plugs into a female receptical on the monitor marked "VTR." The other end plugs into the Recorder at the receptical marked "TV." This eight pin connector carries both the video and the audio signal to the monitor. When you connect it, push it in until it "snaps" into place.

4. Finally, you need to put audio on the tape. Simply plug the microphone into the receptical on the recorder marked "Mic," "microphone," "audio in" or "aux in." Set the microphone on a handkerchief or something soft to cushion harsh sounds of setting objects on the same table the microphone is setting on. You could also tie the microphone around the neck and locate it at about the middle of the chest.

5. If you have the use of a porta-pac this is even easier to use than the other equipment previously discussed.

   a. The units are battery powered and totally self-contained. You need only make sure that there is enough power to record.

   b. One cord between the recorder and the camera handles, video, audio, syncronization and record-pause. The cord has a 10 pin male and female connector at each end. One end goes to the camera, the other to the recorder.

c. By placing the function lever to the record position and pressing the trigger on the camera, you are recording.

d. Microphones are usually built into the camera. You can, however, override this with another microphone by plugging it into the "mic." input.

Equipment Operation:

Recording

1. Complete the connections between the recorder and the associated equipment.

2. Thread a tape and set the tape counter to (000) by pushing the reset button.

3. Push the POWER switch to turn on the recorder and turn on the other components.

4. If there is an input select switch, set it on CAMERA if you are using one camera hooked directly to the recorder, set it on LINE if you are using two cameras or more and a special effects generator, or set it on TV if you are recording off the air.

5. Depress the RECORD button until it locks into position. A lamp may light to indicate that the recorder is ready for recording.

6. If there is an AGC/manual switch, set it on AGC for both Video and Audio signals. No adjustment of video or audio signals is this necessary. If you don't have AGC, while watching the level meters, set each level control. Adjust the audio recording level so that the needle of the level meter does not swing past the green zone on sound peaks. Adjust the video recording level so that the needle of the level meter centers in the blue region of the scale.

7. To start recording, hold the RECORD button down and turn the Function Selector to FORWARD.

8. When the recording is finished, set the Function Selector to STOP:

Playback

1. Connect the monitor to the recorder.

2. Thread the tape and turn on the recorder and monitor. Or if you wish to play back something that you've just recorded, set the Function Selector to the Rewind position and return the tape to the (000) position indicated on the tape counter.

3. Set the Function Selector to FORWARD.

4. Adjust the controls on the monitor to produce the best possible picture and sound.

5. A stop action picture may be obtained by setting the Function Selector to the Pause position.

6. If slow motion is available on your machine, while in the forward position, lift and turn the SLOW SPEED control until you have the desired speed.

Erasing

The erase head of your machine will operate when the selector is in the record position. There, any time a new recording is made, the previous recording on the tape is automatically erased.

SUPER 8MM PRODUCTION

Southwest Regional Media Center for the Deaf
Box 3AM, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

Participants will:

1. Identify three uses of teacher and/or student prepared 8mm film as a classroom learning tool for the hearing impaired.
2. List two advantages of using a planningboard when making a film.
3. Identify Super 8mm film and regular 8mm film when given two pieces of film.
4. Produce a 3 1/2 minute instructional film using previously prepared planningboard demonstrating basic camera techniques; i.e., panning, tilting, zoom, camera steadiness and exposure.
5. Demonstrate their ability to load and operate a Super 8mm camera.
6. Demonstrate their ability to animate a short title sequence. In addition, they will recall from memory two other uses of animation.

Materials

Super 8mm camera

Storyboard cards

50 ft. roll of super 8mm film

Tripod

Ceramic letters or other titling devices

Colored paper

Assorted props

Utilization

Ways to use Super 8mm film:

1. Large group instruction

2. Original language stories by teacher and/or students

3. Open ended stories

4. Recording class experience

5. Small group/individualized

6. Self-instructional films

7. Drill films

Planning

The planning of your 8mm film is probably the most important component in creating a film. It is generally agreed that the ultimate success of a film is in direct relationship to the care that went into planning. Good planning will save time in shooting, eliminate the possibility of leaving something out, reduce the necessity of editing the finished film, and enable another person to shoot it correctly for you. It also helps you get your equipment and materials from your district if you have your objective written out and planning done.

To begin, write a short statement of objective (what you want the film to accomplish). This should be written in performance terms regarding student behavior after viewing. Then limit your subject. A broad subject with elaborate sets and a cast of thousands is difficult to handle in three minutes and twenty seconds of film. So try to limit your film to a single subject or concept. Next list each procedure or point that should be included in your film. Don't forget titles.

Now make a storyboard of your film. The storyboard is a visual representation of the procedure or main points that you just listed. The best storyboards are done on 3 X 5 cards with a sketch of roughly what you plan to include in that scene. The upper right corner of the card can be used to note the camera location, the type of shot (long shot - LS, medium shot - MS, or close-up - CU) and the approximate length of the scene.

After the cards have been completed, lay them out on the floor and look to see how well the movie flows from one scene to another. If any scenes are out of sequence, it is a simple matter of changing the cards around. It should be easy to tell at this point if any additions or deletions should be made.

Now number them and you're ready to shoot.

Camera Operation (Be sure to read the Operating Manual for your particular camera first)

1. All cameras have an eyepiece on the back to look through while shooting your movie (sometimes called viewfinder).*

2. Newer cameras have an electric eye that controls the exposure. If there isn't enough light, a black or red bar will appear in the viewfinder.

3. The "trigger" which advances the film during shooting is located in the front of the camera near the bottom. Usually the handle or pistol grip is on the bottom near the front.

4. On the back or side of the camera is a footage counter. It tells you how much of the 50 feet of film you have left. Sometimes it shows how much you have taken.

5. Many cameras have zoom lenses. Some have to be operated manually and some can be operated by electric power supplied by batteries. The manual zoom lever is usually located on the lens or side of the camera. The power zoom button is usually on top of the camera. The zoom lens allows you to vary the closeness to your subject without having to move the camera closer.

6. The compartment that holds the film cartridge is usually located at the rear of the camera or on the right side near the rear. A latch will release the door and the film will "snap" into place.

7. To focus some movie cameras, it is simply a matter of setting the distance of the subject from the camera. This is done by setting the footage on the lens. You cannot see the focus through this type of viewfinder. On other models, you focus the camera by looking through the lens (viewfinder). With these models, zoom in on the subject as close as possible and then focus. The camera will then be in focus for both close-ups and long shots.

8. Super 8mm film is adaptable for indoor or outdoor light. Some cameras (Kodak) have a key which when pushed into a slot on top of the camera, pushes the filter out of the way. The movie light which is made for these camera mounts onto the camera with a "key" which adjusts the camera for indoor lighting.

   On other models, a switch makes adjustment for indoor or outdoor lighting. By moving the switch one way, a picture of the sun is revealed and the camera is set for outdoor light. By moving it the other way, a picture of a light bulb is revealed and the camera is set for indoor light.

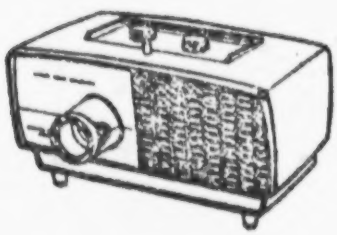
* If you wear glasses, most viewfinders can be set for your own particular eyesight. This allows you to film without wearing your glasses.

Projectors

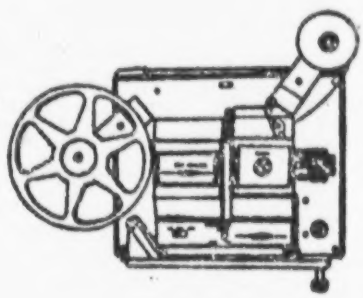
There are basically two types of Super 8mm projectors. The reel-to-reel projector has a supply reel with the film on it. As the film goes through the projector, it winds onto the take-up reel. When the movie is over, the film must be rewound onto the supply reel.

The other projector is the cartridge projector. With these projectors, the film goes around in a continuous loop, thus eliminating the need for rewinding. The film must be in a cartridge.

Usually a reel-to-reel projector is used for large group presentations and cartridge projectors are for small group and individual work. However, if only one projector is available, it can be used for large and small group activities.



CARTRIDGE PROJECTOR



REEL-TO-REEL PROJECTOR

Reference Books

Baddeley, W. Hugh. The Technique of Documentary Film Production, Morgan and Morgan Company, Hastings-on-Hudson, New York.

Basic Production Techniques for Motion Pictures, Kodak Publication No. P-18, Eastman Kodak Company, Rochester, New York.

Basic Tilting and Animation for Motion Pictures, Kodak Publication No. S-21, Eastman Kodak Company, Rochester, New York.

Better Movies in Minutes, Kodak Publications No. AD-4, Eastman Kodak Company, Rochester, New York.

Brodbeck, Emil E. Handbook of Basic Motion Picture Techniques, McGraw-Hill Book Company, Inc., New York.

Caunter, Julien. How to do Tricks in Amateur Films, Focal Press, New York.

Editing Your Movies, Kodak Publication No. AD-26, Eastman Kodak Company, Rochester, New York.

Elements of Visual Literacy, Kodak Publication No. AT-25, Eastman Kodak Company, Rochester, New York.

Gaskill, Arthur and Englander, David. How to Shoot a Movie Story, Duell, Sloane, and Pearce, New York.

Getting the Most Out of Your 8mm Film, Kodak Publication No. AD-21, Eastman Kodak Company, Rochester, New York.

Home Movies Made Easy, Kodak Publication No. AW-2, Eastman Kodak Company, Rochester, New York.

How to Make Good Home Movies, Kodak Publication No. AW-3, Eastman Kodak Company, Rochester, New York.

Indoor Movie-Making, Kodak Publication No. AD-11, Eastman Kodak Company, Rochester, New York.

Kemp, Jerrold E. Planning and Producing Audiovisual Materials, Chandler Publishing Company, San Francisco, California.

Making a Movie, Kodak Publication No. AD-10, Eastman Kodak Company, Rochester, New York.

Mascelli, Joseph V. The Five C's of Cinematography, Cine/Graf Publications, P.O. Box 430, Hollywood, California.

Mercer, John. An Introduction to Cinematography, Stipes Publishing Company, Champaign, Illinois.

Movies with a Purpose, Motion Picture and Education Markets Division, Eastman Kodak Company, Rochester, New York.

Ruesch, Jurgen, and Kees, Weldon. *Non-verbal Communication*, Berkeley: University of California Press, Berkeley, California.

Tilting Your Movies, Kodak Publication No. AD-24, Eastman Kodak Company, Rochester, New York.

TV/FILM/SLIDE SEQUENCE PLANNINGBOARD

TITLE: _____ PAGE NUMBER ____

PRODUCER: _____ OF ____

INSTRUCTIONS: Visual in solid box; Description, Camera, Text, Special Instructions or Coordinated Media to the right of each box.

NO. ____

NO. ____

NO. ____

NO. ____

MATERIALS LIST

This list does not pretend to be exhaustive. The intention is to provide the participants of our workshops with a representative listing. See the last few pages for addresses of firms listed here. All prices given here are approximate.*

Dry Mounting and Laminating Materials

Dry Mounting Tissue

Eastman Kodak Co.
Seal, Inc. (MT5) ..... $ 28.65 / 500 (11 x 14)

Laminating Film

Seal, Inc. (Seal-Lamin) ..... 15.00 / roll (11 1/8" x 200' roll)

Posterboard

6 ply or 8 ply ..... 125.00 / M (22 x 28 CC one side)

Concord Artists Materials
Dick Blick Company
Morilla Company, The

Rubber Cement

Dick Blick Company ..... .45 / 4 oz. bottle
Concord Artists Materials

Dry Mounting Cloth

Seal, Inc. (Chartex) ..... 12.00 / 36" x 25' roll
Holliston Mills, Inc.

Cotton Velvet

Dick Blick Company ..... .19 / sheet

Overhead Materials

Acetate

Clear Acetate 8 1/2 X 11

Garith Products Joseph Newstat	$30.00 / M
Arthur Brown Brothers Keuffel & Esser	

Blue Acetate 8 1/2 X 11

Joseph Newstat Arthur Brown Brothers	30.00 / M
Keuffel & Esser	

Reprocessed X-Ray Film

Garith Products Company	40.00 / M

Styrex 8 1/2 X 11

School Pen Company	20.00 / M

Pencils, Transparent Colors - grease base

3M	1.18 / 8
Koh-I-Noor (Projector Color)	
Ozalid (Transpara-Color)	
Dixon	

Pens, Nylon-Tip, Water

3M	3.98 / 5
Sandford (Vis-Vis).....	.69 / each
Staedtler (Nylostick).....	
Dixon	.50 / each

Pens, Permanent

Markette	.58 / each
3M	3.88 / 5
Sandford (Sharpie)	.49 / each
Eagle	
Pentel (oil base)	

3M Heat Process Film

Minnesota Mining & Manufacturing Co.	
#533	20.00 / 100
#127	30.20 / 100

Letters, Dry - Transfer - (Opaque & Transparent)

AV Company	1.50 / sheet
Cella-Pak	1.25 / sheet
Chart-Pak	
K & E Normatype	
Colorstik	1.95 /3 (7 1/2" X 10" sheets)

Display Boards

Flannel Board Materials

Intructo Products Company
Educational Supply & Specialty
Visual Specialties Company

Hook N' Loop Boards & Materials

Charles Mayer Studios, Inc.
Charles Feeley Associates
Maharam Faher, Corp.

Clip Art and Books

American Mail Advertising
A. A. Archibald Publisher
Mulls-Ad Services
Harry Volk, Art Studio

Film

* For Instamatic Cameras

Kodak

Black & White Prints		
126 Verichrome Pan	12 exposure.....	.70
126 TRI-X	12 exposure.....	.85
Color Slides		
126 Kodachrome	20 exposure.....	2.10
126 Ektachrome-X	20 exposure.....	2.30
126 High Speed Ektachrome	20 exposure.....	2.70
Color Print		
126 Kodacolor	12 exposure.....	1.40
" " "	20 exposure.....	1.95

Polaroid Film

Local.....	2.39 per cart.
Flash cubes (3 per pkg.) local.....	1.50 per pk.
Magic Cubes (no batteries in camera).....	2.35 per pk.
AG1 flashbulbs (1 doz. per pk.) local.....	1.50 per pk.

* Does not include processing. May be a little high.

Miscellaneous

Masking Tape ..... $90.00 / gross (3/4")

Dick Blick Company
Arthur Brown Brothers ..... .80 / roll

Double Coated Tape ..... 1.60 / roll (1/2" X 1080")

Dick Blick Company
Arthur Brown Brothers

Color Sheets, Pressure Sensitive

Artype
Bourges..... .80 / sheet
Chart-Pak

Tracing Paper ..... .65 / pack

Beseler
Ozalid

Transparency Mounts

Instructo
3M Company
Beseler
Holson Company ..... 53.00 / thousand

Transparency Masters (Printed Originals)*

Keuffel & Esser
Ozalid
*3M Company ..... 1.75 / pack

Ink, India ..... .60 / 3/4 oz. bottle

Dick Blick Company
Arthur Brown Brothers
Sanford Ink Company

Letters, Precut Cardboard ..... 1.15 / sheet

Stick-a-Letter
ABC School Supply
Dick Blick Company
Ideal School Supply Company

Pencils, Marking (Grease or China) ..... .30 / each

Alvin and Company, Inc. (Mark All)
Dick Blick Company

* 3M has discontinued their masters but many dealers still have some

Thermal Spirit Masters ..... $ 8.00 / box

A. B. Dick
Columbia Carbon & Ribbon

ADDRESSES FOR MATERIALS

In most cases the address given is either a home-office or factory location. Nearby representatives can often be located by referring to "Audiovisual Equipment and Supplies" in the Yellow Pages of your telephone directory.

A. A. Archibald Publishers
419 South Main Street
Burbank, California 91506

A. B. C. School Supply, Inc.
34 East Andrews Dr. NW
Atlanta, Georgia 30305

A. B. Dick
Chicago, Illinois 60600

A. V. Communications
159 Verdi Street
Farmingdale, New York 11735

Arthur Brown and Company
2 West 46th Street
New York, New York 10036

Artype, Inc.
127 South Northwest Highway
Barrington, Illinois 60010

Alvin & Company, Inc.
611 Palisada Avenue
Windsor, Conn. 06095

American Mail Advertising
61 Newberry Street
Boston, Mass. 02115

Bourges Color Corporation
80 Fifth Avenue
New York, New York 10011

Cello-Pak
1 River Road
Leeds, Mass. 01053

Charles Beseler Company
219 South 18th Street
East Orange, New Jersey 07018

Charles Feeley Associates
Rye, New York 10580

Color-Stick Company
219 South 18th Street
East Orange, New Jersey 07018

Charles Mayer Studios, Inc.
140 East Market
Akron, Ohio 44308

Columbia Ribbon & Carbon
Manufacturing Col, Inc.
Midwest Division
225 South River Street
Aurora, Illinois 60507

Concord Artist's Materials
181 Lexington Avenue
New York, New York 10016

Dick Blick Company
P.O. Box 1267
Galesburg, Illinois 61401

Eastman Kodak Company
343 State Street
Rochester, New York 14650

Educational Supply & Specialty Company
2833 Gage Avenue
Huntington Park, CA 90255

Halliston Mills, Inc.
Norwood, Mass. 02062

Holson, Company
Danbury Road
Wilton, Conn. 06897

Ideal School Supply Company
8312 - 46 Burkhoff Avenue
Chicago, Illinois 60620

Instructo Products Company
1635 North 55th Street
Philadelphia, Penn. 19131

Johnson Process Company
(now changed to):
Garith Products Co., Inc.
100 Sullivan Street
Westwood, New Jersey 07675

Joseph Newstat
8501 Agusta Street
Philadelphia, Penn. 19152

J. S. Staedtler
P.O. Box 205
Hackensack, New Jersey 07605

Keuffel & Esser Company
Audio-Visual Division
300 Adams
Hoboken, New Jersey 07030

Koh-I-Noor Pencil Co.
100 North Street
Bloombury, New Jersey 08804

Maharam Fabric Corp.
130 West 45th Street
New York, New York 10036

Minnesota Mining & Manufacturing
900 Bush Avenue
St. Paul, Minn. 55106

Morilla Company
328 - 322 East 23rd Street
New York, New York 10010

Multi-Ad Services
118 Walnut Street
Peoria, Illinois 61602

Ozalid Division
General Aniline & Film Corp.
Johnson City, New York 13790

Sanford Ink Company
2740 Washington Blvd.
Bellwood, Illinois 60104

School Pen Company
295 Main
Box 407
Chatham, New Jersey 07928

Seal, Inc.
Derby, Conn. 06418

Visual Specialties Company
5701 West Vernor Hwy.
Detroit, Michigan 48209

Volk, Harry
Harry Volk Art Studio
Pleasantville, New Jersey 08232

KAJ:9/72

EQUIPMENT MANUFACTURERS

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

This listing is for equipment manufacturers as represented by equipment used in this workshop only. Many companies produce similar 'hardware.' We suggest you explore all local resources and do not accept this listing as an endorsement.

AUDITORY TRAINING EQUIPMENT

Cassette and Reel-to-Reel Tape Recorders

Allied Radio Shack
2725 W. 7th Street
Fort Worth, Texas 76107

Concord Consumer Division
Division of Benjamin Electronic Sound Corporation
40 Smith Street
Farmington, New York 11735

Craig Corporation
921 West Artesia Blvd.
Compton, California 90220

North American Philips Company, Inc. (Norelco)
High Fidelity Products Department
100 East 42nd Street
New York, New York 10017

RCA Instructional Electronics
Front and Cooper Streets
Camden, New Jersey 08102

Sony Corporation
8150 Vineland Avenue
Sun Valley, California 91352

Wollensak
Minnesota Mining and Manufacturing Company
3M Center
St. Paul, Minnesota 55101

Language Master

Bell and Howell
Audio-Vi$ual Division
7100 McCormick Road
Chicago, Illinois 60645

EFI Audio Flashcard Reader

Electronic Futures, Inc.
Division of KMS Industries, Inc.
57 Dodge Avenue
North Haven, Connecticut

CAMERAS

Ektagraphic Visualmaker

Eastman Kodak Company
343 State
Rochester, New York 14650

Polaroid Cameras

Polaroid Corporation
549 Technology Square
Cambridge, Massachusetts 02139

DRY MOUNT PRESS

Seal, Inc.
Roosevelt Drive
Derby, Connecticut 06418

LETTERING EQUIPMENT

Wood-Regan Instrument Company (WRICO)
184 Franklin Avenue
Nutley, New Jersey 07110

Koh-i-Noor, Inc.
100 North Street
Bloomsburg, New Jersey 08804

PROJECTORS

Super 8mm and 8mm Motion Picture Projectors

Bell and Howell
Audio-Visual Division
7100 McCormick Road
Chicago, Illinois 60645

Eastman Kodak Company
343 State
Rochester, New York 14650

Technicolor
Commercial and Education Division
1300 Frawley Drive
Costa Mesa, California 92627

16mm Motion Picture Projectors

Bell and Howell
Audio-Visual Division
7100 McCormick Road
Chicago, Illinois 60645

Graflex, Inc.
Singer Education and Training Products
3750 Monroe Avenue
Rochester, New York 14603

Filmstrip Projectors

Graflex, Inc.
Singer Education and Training Products
3750 Monroe Avenue
Rochester, New York 14603

Viewlex, Inc.
Holbrook, New York 11741

Overhead Projectors

Buhl Projector Company, Inc.
1776 New Highway
Farmingdale, New York 11735

Beseler Company
219 South 18th Street
East Orange, New Jersey 07018

Slide Projectors

Eastman Kodak
343 State
Rochester, New York 14650

SCREENS

Da-Lite Screen Company, Inc.
Box 629
Warsaw, Indiana

VIDEO TAPE RECORDERS

Concord Communications Systems Division
Division of Benjamin Electronic Sound Corporation
40 Smith Street
Farmington, New York 11735

Sony Corporation
8150 Vineland Avenue
Sun Valley, California 91352

KAJ:9/72

RESOURCE MATERIALS

Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

The following is not meant to be a complete list of media/instructional technology resources. Listed below are books that you are likely to find in most libraries or campus bookstores. For a more complete listing, refer to the bibliography at the rear of these books.

Media Production

1. Planning and Producing Audiovisual Materials

   Jerrold E. Kemp
   Chandler Publishing Company

2. Preparing Visual Instructional Materials

   Ed Minor
   McGraw-Hill Book Company, Inc.

3. Techniques for Producing Visual Instructional Media

   Ed Minor and Harvey Frye
   McGraw-Hill Book Company, Inc.

4. Audiovisual Materials

   Wittich & Schuller
   Harper & Row

5. Audiovisual Equipment: Self Instructional Manual

   Stanton C. Oates
   Wm. C. Brown Company Publishers
   Dubuque, Iowa

Media Utilization

1. The Overhead System: Production, Implementation & Utilization

   Visual Instruction Bureau
   Division of Extension
   The University of Texas

2. Audiovisual Instruction

   Brown, Lewis, Harcleroad
   McGraw-Hill Book Company, Inc.

Instructional Systems

1. Preparing Instructional Objectives

   Robert F. Mager
   Fearon Publisher
   Palo Alto, California

2. Analyzing Performance Problems

   Robert Mager and Peter Pipe
   Fearon Publishers
   Palo Alto, California

3. Instructional Systems

   Bela H. Banathy
   Fearon Publisher
   Palo Alto, California

4. Why Systems Engineering?

   Corrigan and Kaufman
   Fearon Publisher
   Palo Alto, California

5. Teaching and Media: A Systematic Approach

   Vernon Gerlach and Donald Ely
   Prentice-Hall, Inc.

6. Designing Instructional Systems

   Robert Mager
   Fearon Publishers
   Palo Alto, California

Periodicals

1. Audiovisual Instruction

   Department of Audiovisual Instruction, Inc.
   Publication Office
   2901 Byrdhill Road
   Richmond, Virginia 23205

2. Modern Media Teacher

   Geo. A. Pflaum, Publisher
   P.O. Box 20817
   Philadelphia, Pa. 19141

3. Instructor

Instructor Publications, Inc.
Dannsville, New York 14437

4. Educational Media

Educational Media, Inc.
1015 Florence Street
Fort Worth, Texas 76102

5. Grade Teacher

CCM Professional Magazines, Inc.
22 W. Putnam
Greenwich, Conn. 06830

MEDIA SERVICES
FOR
TEACHERS OF THE DEAF

Prepared by the Media Staff of the
Southwest Regional Media Center for the Deaf
Box 3AW, New Mexico State University
Las Cruces, New Mexico 88003

Objectives

Each participant will be able to list:

1. The procedure for obtaining media services that may be available locally.
2. Four major activities of MSCF.
3. The procedure for obtaining instructional materials from Media Services and Captioned Films.
4. The location of IMC's in his area.
5. The general activities of the IMC/RMC Network.
6. The locations of educational and general interest film depositories.
7. The four Regional Media Centers and two major activities of each.
8. The procedure for making application for summer institutes.

Local Services

One of the first things you should do on your new job as a teacher of the deaf is to explore the media services that are available locally. You might ask these questions:

1. Is there a media specialist serving the school?
2. Is there a media production room?
3. What equipment is available for your use in the classroom?
4. What instructional materials are available for your use in the classroom?
5. What is the procedure for acquiring equipment and materials?
6. What is the time delay for equipment and materials?
7. Is there a satellite Special Education Instructional Materials Center within the school district?

Media Services and Captioned Films (MSCF)

Media Services and Captioned Films (MSCF) is a federal agency funded by the United States Office of Education (USOE), Bureau of Education for the Handicapped (BEH).

MSCF is now disseminating instructional materials to schools for the deaf throughout the nation. These materials include transparencies and Super 8 films, all directed at specific units of study.

To obtain these materials as a teacher of the deaf, the first thing you should do is find out if your school is receiving materials

from MSCF (sometimes schools put these materials on a shelf without informing anyone that they have them, and the materials are never used.) If the school doesn't have MSCF materials, the next step is to find out if the school has a distribution number. If it doesn't, write for one on school stationery in care of:

Dr. Howard Quigley, Director
Educational Media Distribution Center
5034 Wisconsin Avenue, N.W.
Washington, D. C. 20016

(The distribution number is usually assigned to the school principal or a supervising teacher. Only in very small programs is the number assigned to a teacher.)

After receiving a distribution number, periodically MSCF will send the school a list of instructional materials that are being prepared for distribution. In order to receive these materials free of charge, order them under the school's assigned distribution number. It should be noted that at one time MSCF distributed large quantities of audiovisual equipment for use in classrooms for the deaf. There are no plans to continue this activity.

In addition, MSCF loans 16mm captioned films for the deaf. There are two general categories of captioned films, general interest films and educational films. In the general interest category, MSCF takes recent Hollywood-type films and captions them for the entertainment of deaf people.

Catalogs which list the captioned films presently available for loan and which provide information on location of film depositories (both general interest and educational) are available on request from Dr. Howard Quigley.

Instructional Materials Centers

Located at the rear of this handout is a list of the regional Special Education Instructional Materials Centers (SEIMC's or IMC's) and Regional Media Centers for the Deaf (RMC's) that are located throughout the country. With this list is a map locating each one of those centers and the regions that are served by the respective SEIMC. This IMC Network was set up by BEH for the storage and distribution of instructional materials related to special education. Each school can write to the IMC which serves its region and request a catalog of materials which the IMC has available for loan. Do not write to IMC's out of your region. They are equipped to handle only those schools within their particular region. In addition, each IMC has satellite centers within its region. You may want to investigate the location of the nearest satellite center.

Regional Media Centers

There are four Regional Media Centers (RMC's) for the Deaf located throughout the country. These four Regional Media Centers are funded through BEH and contract directly with Media Services and Captioned Films.

Each of these four RMC's provides inservice training for schools within its own region. If you or your school's administration feel that you need inservice training in related areas of instructional technology/media, just write to the director of the Regional Media Center which serves your region requesting information regarding inservice training.

In addition, each of the four centers provides other services to teachers of the deaf. The Northeast Regional Media Center for the Deaf (NRMCD) is now going into selected schools in its region and providing inservice training for an extended period of time as an alternative to summer institutes. The major emphasis of the NRMCD is the utilization of overhead projectors and overhead transparencies with the deaf. To obtain further information about any of the programs, write to the director, c/o NRMCD. (See attached list of IMC/RMC directors for complete address).

The Midwest Regional Media Center for the Deaf (NRMCD) conducts a media program designed to reach all levels of educators for the hearing impaired. the MRMCD instructional program includes the following media institutes and workshops:

1. Summer institute in basic media design and utilization for teachers of the deaf (stipends and travel are paid).
2. Media Institute for Supervising Teachers (travel and per diem).
3. Media Institute for College Educators preparing Teachers of the Deaf (travel and per diem).
4. Media Institute for Media Specialists in School Programs for the Deaf (travel and per diem).
5. Eight media workshops conducted in school programs for the deaf in the Midwest Region.

The MRMCD also sponsors the annual Symposium on Research and Utilization of Educational Media for Teaching the Deaf. The Symposium is conducted in the Spring.

In addition, the MRMCD produces 8mm instructional films and conducts a field assessment program for these materials. If you are teaching in the Midwest region, you may be interested in asking about field testing the products which they produce for classroom use.

For more information regarding all MRMCD projects, write the director c/o the Midwest Regional Media Center for the Deaf (see address list).

The Southern Regional Media Center for the Deaf (SRMCD) at the University of Tennessee is primarily concerned with the development of teacher competencies in utilization of television resources and materials. Training is accomplished in a variety of ways. For example television is included in the annual Summer Institute in which 30 teachers, supervisors, and administrators come to Knoxville to participate in basic media training activities.

The SRMCD conducts short-term inservice television workshops at schools for the deaf throughout its region. In addition, the preservice teacher is given TV experience through exposure to a self-instructional television kit.

The Southern Center also maintains a master video tape library and laboratory facilities for videotape exchange and distribution. Tape duplication and captioning requests are filled as a free service to schools with television equipment. A quarterly mailer, "Video Memos," is sent to participating schools informing them of the latest developments in the area of instructional television and electronics technology.

Considerable work has been done in the area of captioning television programs. Among the titles soon to be available to schools for the deaf are the entire "Untamed World" series and the "National Geographic" series (Never to Hear the Wind--Nanette Fabray).

In addition to its work in television, the Southern Regional Media Center for the Deaf is developing various materials to acquaint sections of the general public with the problems of the deaf. "Patchwork," a filmstrip and audio tape presentation, is designed to bring regular classroom teachers nearer the problems of hearing impaired children. "Parent Alert" is a sound filmstrip presentation designed to let parents know how they can spot a hearing loss in their children, and, should they find a hearing loss, what the parent and hearing professional can do about it. "The Good Old Days" is concerned with presbycusis, or hearing loss which is due to the aging process.

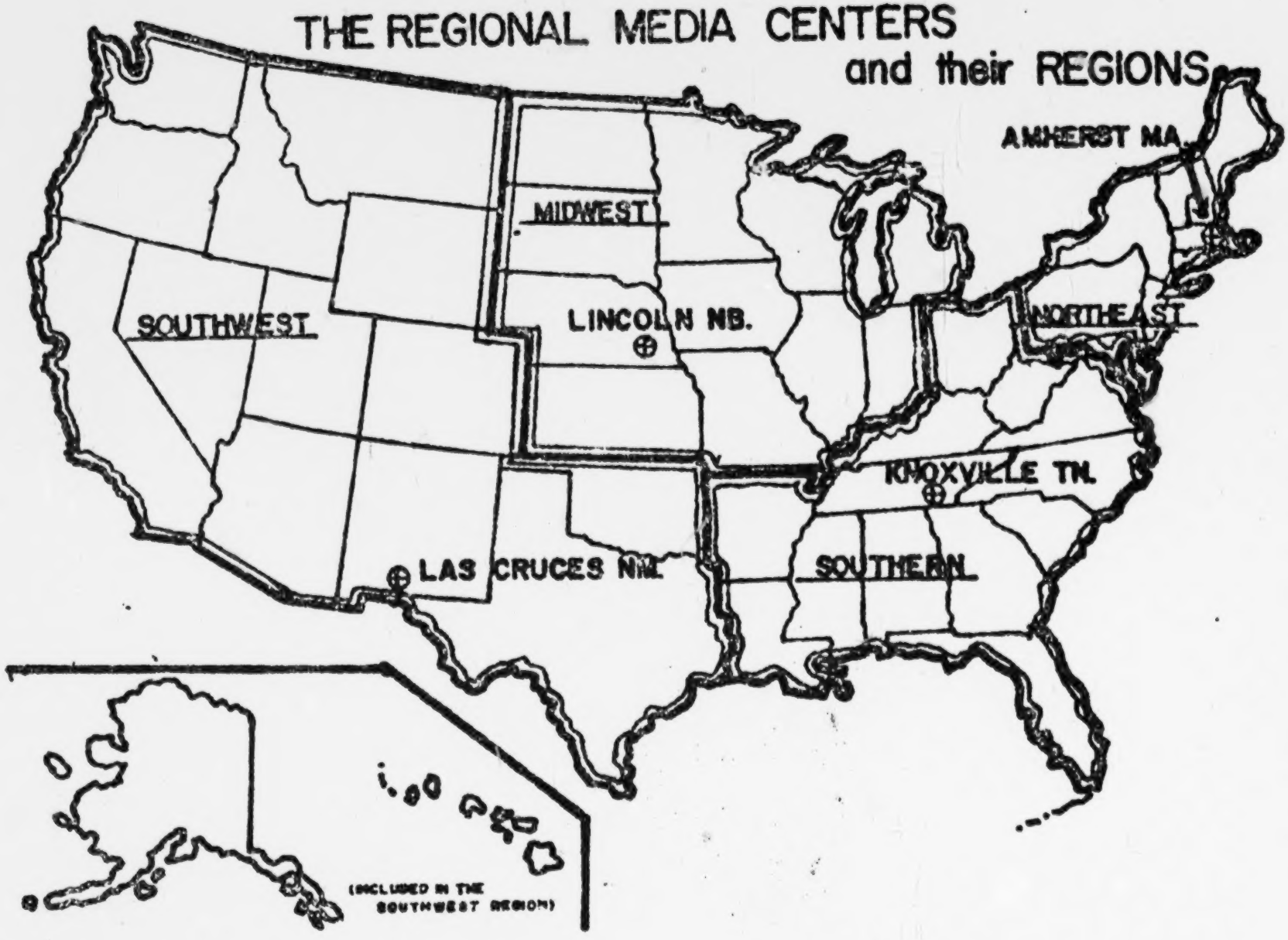
"Media Memos," a quarterly mailer which informs teachers of materials both produced and reviewed by the SRMCD, can be obtained free of charge. To obtain a catalog of tapes available for duplication, or to get on the SRMCD mailing list for "Video Memos" or "Media Memos," or to obtain captioned video tapes from the Southern Center, write to the director, c/o SRMCD (see address list).

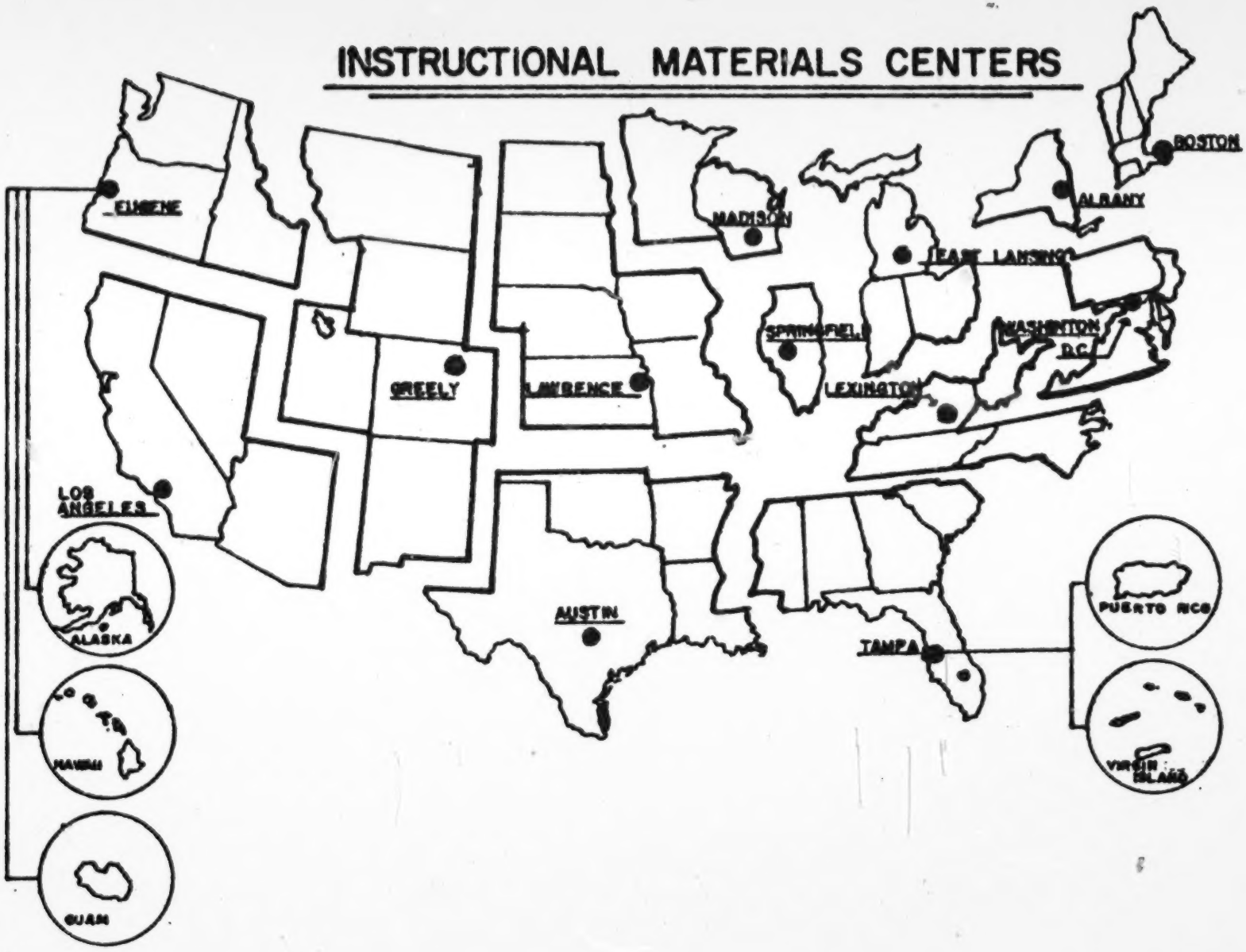
The major activity of the Southwest Regional Media Center for the Deaf (SWRMCD) is the conducting of conferences and workshops in media/instructional technology for teachers, prospective teachers, teacher preparers, media specialists and school administrators.

In addition, SWRMCD also conducts summer institutes in programmed instruction and instructional systems for teachers of the deaf. To apply, write to the director, c/o SWRMCD. The Southwest Regional Center also acts as a clearinghouse for the collection and distribution of teacher-prepared programmed instructional materials. Programmed instruction abstract catalogs are available upon request. Programs are copied for schools on request at 5¢ per page, plus a 10% handling and mailing charge. To receive a programmed instruction abstract catalog, write to P.I. Clearinghouse, c/o SWRMCD. Be sure to designate how many copies will be needed by your staff.

If you are a certified teacher of the deaf and have taught for at least one school term, you may apply at the Regional Media Centers to attend their summer institutes. Write to the director of the media center whose institute you wish to attend and application forms will be mailed to you. Applications should be made no later than January of the year in which you wish to attend. Stipends and travel are paid, and graduate credit is given to each participant by the sponsoring university.

LRW:7/72


THE REGIONAL MEDIA CENTERS
and their REGIONS
AMHERST MA.
MIDWEST
SOUTHWEST
LINCOLN NB.
NORTHEAST
KNOXVILLE TN.
LAS CRUCES NM.
SOUTHERN
(INCLUDED IN THE SOUTHWEST REGION)


INSTRUCTIONAL MATERIALS CENTERS
EUGENE
GREELY
LAWRENCE
MADISON
EAST LANSING
ALBANY
BOSTON
SPRINGFIELD
WASHINGTON D.C.
LEXINGTON
AUSTIN
TAMPA
LOS ANGELES
ALASKA
HAWAII
GUAM
PUERTO RICO
VIRGIN ISLANDS

SPECIAL EDUCATION IMC/RMC NETWORK

Network Office

1411 S. Jefferson Davis Highway, Suite 928
Arlington, Virginia 22202
703-920-7770
Dr. Donald K. Erickson, Director
Dr. Robert B. MacIntyre, Associate Director

Mr. Carl W. Lappin, Director
American Printing House for the Blind
Instructional Materials Reference Center
1839 Frankfort Avenue
Louisville, Kentucky 40206
Tel: 502-895-2405

Region: National

Dr. Donald K. Erickson, Director
CEC Information Center on Exceptional Children (CEC-ERIC)
The Council for Exceptional Children
1411 S. Jefferson Davis Highway, Suite 900
Arlington, Virginia 22202
Tel: 703-521-8820

Region: National

Dr. John L. Tringo, Director
New England Materials-Instruction Center
Boston University
704 Commonwealth
Boston, Massachusetts 02215
Tel: 617-353-3266

Region: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Dr. Charles A. Watts, Director
Instructional Materials Center for Special Education
University of Southern California
1031 South Broadway, Suite 623
Los Angeles, California 90015
Tel: 213-747-9308

Region: Arizona, California, Nevada

Dr. Willard Jones, Director
Rocky Mountain Special Education Instructional Materials Center
University of Northern Colorado
Greeley, Colorado 80631
Tel: 303-351-2681

Region: Colorado, Montana, New Mexico, Utah, Wyoming

jlm:2/14/72

Dr. Faye M. Brown, Director
Southern States Cooperative
Learning Resources System
Division of Education
Auburn University at Montgomery
Montgomery, Alabama 36109
Tel: 205-281-1766

Region: Alabama, Florida, Georgia, Mississippi, South Carolina, Puerto Rico, Virgin Islands

Dr. Gloria Calovini, Director
Instructional Materials Center
for Handicapped Children and Youth
Office of Superintendent of Public
Instruction
1020 South Spring Street
Springfield, Illinois 62704
Tel: 217-525-2436

Region: Illinois

Mr. Charles S. Spellman, Director
Special Education Instructional
Materials Center
University of Kansas
1115 Louisiana
Lawrence, Kansas 66044
Tel: 913-864-4780

Region: Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota

Dr. A. Edward Blackhurst, Director
University of Kentucky Regional
Special Education Instructional
Materials Center
730 South Limestone Street
Lexington, Kentucky 40506
Tel: 606-258-4921

Region: Kentucky, North Carolina, Tennessee, West Virginia

Mrs. Lou Alonso, Director
USOE/MSU Instructional Materials
Center for Handicapped Children
and Youth
Michigan State University
213 Erickson Hall
East Lansing, Michigan 48823
Tel: 517-353-7810

Region: Indiana, Michigan, Ohio

Mr. Raphael F. Simches, State
Director
Mr. Maurice D. Olsen, Coordinator
Special Education Instructional
Materials Center
New York State Education Department
800 North Pearl Street
Albany, New York 12224
Tel: 518-474-7690

Region: New York State and central New York

jlm:2/14/72

Mrs. Elizabeth L. Ayre, Regional Director
Regional Special Education Instructional Materials Center
State University College at Buffalo
1300 Elmwood Avenue
Buffalo, New York 14222
Tel: 716-862-5506

Region: Western New York

Dr. Shirley Cohen, Director
RSEIMC-CUNY
Room 114
921 Lexington Avenue
New York, New York 10021
Tel: 212-360-5531 or 360-5576

Region: Southeastern New York

Dr. Wayne D. Lance, Director
Northwest Regional Special Education Instructional Materials Center
University of Oregon
Clinical Services Building
Eugene, Oregon 97403
Tel: 503-686-3585

Region: Alaska, Hawaii, Idaho, Oregon, Washington

Mr. Albert W. Fell, Director
Special Education Instructional Materials Center
University of Texas
2613 Wichita Street
Austin, Texas 78712
Tel: 512-471-3145

Region: Arkansas, Louisiana, Oklahoma, Texas

Dr. Raymond S. Cottrell, Director
Mid-Atlantic Region Special Education Instructional Materials Center
George Washington University
Washington, D. C. 20006
Tel: 202-676-7200

Region: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia

Dr. LeRoy Aserlind, Director
Special Education Instructional Materials Center
University of Wisconsin
415 West Gilman Street
Madison, Wisconsin 53706
Tel: 608-262-4913

Region: Minnesota, Wisconsin

jlm:2/14/72

Regional Media Centers

Mr. Hubert D. Summers, Director
Southwest Regional Media Center
for the Deaf
New Mexico State University
P.O. Box 3AW
Las Cruces, New Mexico 88001
Tel: 505-646-1017

Region: Alaska, Arizona, California, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Trust Territory of the Pacific Islands, Utah, Washington, Wyoming

Dr. Robert E. Stepp, Director
Midwest Regional Media Center
for the Deaf
University of Nebraska
Nebraska Hall W178
Lincoln, Nebraska 68508
Tel: 402-472-2141

Region: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, South Dakota, Wisconsin, Missouri

Dr. William Jackson, Director
Southern Regional Media Center
for the Deaf
The University of Tennessee
College of Education
Knoxville, Tennessee 37916
Tel: 615-974-3308

Region: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Ohio, Puerto Rico, South Carolina, Tennessee, Virginia, Virgin Islands, West Virginia

Dr. Raymond Wyman, Director
Northeast Regional Media Center
for the Deaf
Thompson Hall
University of Massachusetts
Amherst, Massachusetts 01003
Tel: 413-545-2457

Region: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, Vermont

jlm:2/14/72